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OCTOBER, 1940

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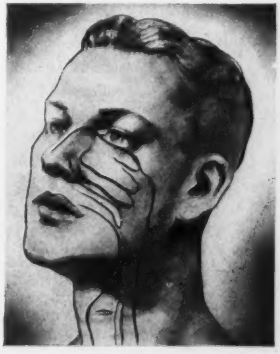

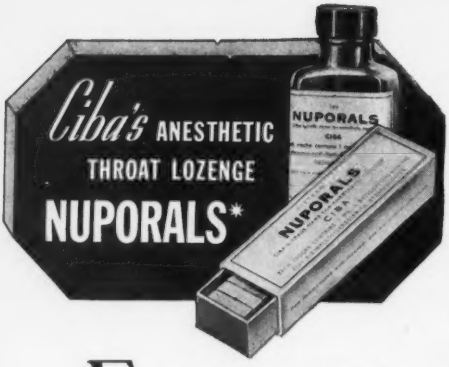

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NEWS AND NOTES

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"Osler at Old Blockley" and "Beaumont and St. Martin" are scheduled during the next few months to appear at a number of Medical Conventions. The paintings will be loaned free of charge to Medical Societies and Medical Schools who may wish to exhibit them under their auspices. Physicians interested should write reserving exhibition dates well in advance.

In making plans for the series, John Wyeth & Brother have been fortunate in having the advice of several eminent medical historians. Future paintings in the series will include Dr. Philip Syng Physick of Philadelphia (1768-1837), the father of American surgery, Ephriam McDowell (1771-1830), the father of abdominal surgery, Oliver Wendell Holmes (1809-1894), pioneer in combating puerperal fever, Major Walter Reed, M.D., (1851-1920), conqueror of yellow fever, and Dorothea Lynde Dix, who was instrumental in stimulating medical study and care of the insane and feebleminded.

It is recommended that you mail your requests at once to John Wyeth & Brother, Philadelphia, Pa., before the supply is exhausted.

"Osler at Old Blockley," by Dean Cornwell, N. A.

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Concluded on page XVII

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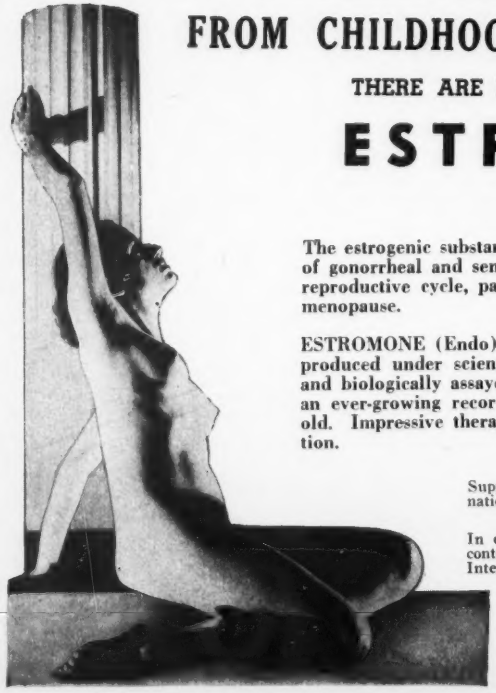

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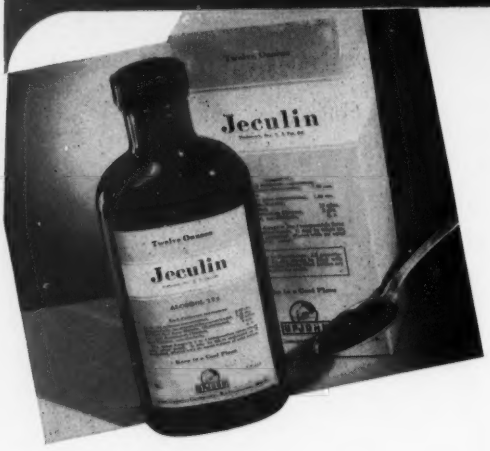

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Harold Hays

IN the death of Harold Hays, long a member of our editorial staff, the MEDICAL TIMES has sustained a grievous loss. No one of our colleagues has been more faithful than he. As otorhinolaryngologist, author, inventor, editor, teacher, soldier, hospital director and crusader against deafness he pursued a distinguished and versatile career and displayed at all points a singular genius for fellowship and friendship—the trait which memory will chiefly cherish in a man of many gifts.

Roentgenic Avitaminosis

RATS deprived of vitamin B_1 develop osteoarthritic lesions. The Ménière syndrome has been ameliorated by the correction of vitamin B_1 deficiency. A characteristic electrocardiogram has been described in the presence of such deficiency. Since the administration of thiamin chloride has been found highly efficacious in the treatment of Roentgen sickness, one would be impelled to counsel a course of vitamin B_1 before, during and after intensive and protracted x-ray therapy, as a prophylactic measure against possible roentgenic damage in the form of osteoarthritis, the Ménière syndrome, neuritis and polyneuritis, beriberi-like phenomena, gastro-intestinal dysfunction, faulty carbohydrate metabolism, gout, and myocardial changes, not to speak of other possibilities, on the assumption that Roentgen sickness is a primary consequence of vitamin B_1 deficiency directly induced by the x-ray and a warning of probable vulnerability to specific secondary lesions.

A "Subversive" American

ONE of the most conspicuous of New England physicians in the nineteenth century, Jacob Bigelow, deeply influenced modern thought and modern objectives. He seems to have grasped the meaning of science and many of its social implications very early in life and almost alone among his contemporaries. Thus his belief in a utilitarian plus a liberal education, and his activity in the founding of the Massachusetts Institute of Technology, become clear.

He believed that the prevailingly evil conditions of the day were the result of conservation of a privileged order and believed it to be the duty of educational institutions to adapt themselves to the real wants of the place and time in which they exist. The "foes of change", enjoying a monopoly of the good things of life, caring nothing about the frustrations and insecurities of those outside their world, hated their bold and honest critic. The idea of action in Bigelow's sense horrified reactionaries. It was a world frozen into a half fettered and half free category—a house divided against itself.

Medical Times
ESTABLISHED IN 1872

In his address at the dedication of the new hall of the Massachusetts Institute of Technology, in 1865, Bigelow advocated preprofessional studies selected on a basis most likely to conduct the student to his appropriate sphere of usefulness. "Collateral studies of different kinds may always be allowed, but they should be subordinate and subsidiary and need not interfere with the great objects of his special education. . . . A common college education now culminates in the student becoming what is called a master of arts; but this, in the majority of cases, means simply a master of nothing."

A striking passage in an address made in 1866 runs as follows: "The wisdom of the ancients was selfish in its privileges, inwrought with error, superstition and vice; confined to a very few; inoperative and useless to the masses, it did not and could not advance any vast public and improving interests, nor conserve social prosperity and order." Among the "ancients" he obviously included his contemporaries.

Imagine the effect upon staid New Englanders of declarations "that education is the right of the many and not the privilege of the few; that that conservatism which restricts education to the classics and what may be called esthetic culture is but the highest form of class selfishness; that such practices are not only in themselves vicious, but tend to the lowering of the whole educational fabric; that the underlying thought in education is the teaching how to *think* and the meaning of *study*; and this much at least is due to the masses: that it is those things which tend most to the useful arts, to the alleviation of human suffering, to the broadening of the popular horizon, for which we must all strive."

Inevitably, Bigelow was regarded by the timid and benighted in his day, despite his unimpeachable social caste and his high posts in the Harvard Medical School and in the Massachusetts General Hospital, as a subversive factor in the community.

It is clear that Bigelow was not the type of scholar characterized by Archibald MacLeish as the kind who "digs his ivory cellar in the ruins of the past and lets the present sicken as it will." He was a first rate classical scholar but he trained himself in all the technology of the day and envisioned the future of science. When he published his *American Medical Botany* he designed and executed most of the plates himself. As Rumford professor on the application of science to the useful arts in Harvard College he made his own models. "He knew what was done and how done by smith, glass blower, clockmaker, type-caster, printer, molder, and engraver." He was an accomplished landscape gardener and personally created Mount Auburn Cemetery after overcoming bitter opposition to his plan for extra-urban burial places, since there was danger to the public health in the disgraceful city churchyards and vaults.

It was Bigelow who did most to inculcate, in a profession and public who believed too much in drug magic, an understanding as to the self-limited character of disease.

In an age which overemphasized therapeutics, this professor of therapeutics (in the Harvard Medical School) declared that the great physician is he "who above other

men understands diagnosis."

Somatopsychic Medical Practice

THEORETICALLY, a typical somatopsychic formula is as follows: somatic disease plus traumatic situation plus personality equal "mental status."

Somatopsychic medicine states that the equation is irreversible, and claims that mental status is merely function.

The somatopsychic physician assumes that the physical chemistry of "soma" creates the nerve currents of "psyche."

It is another postulate of somatopsychic medical practice, equally essential and fundamental, that the personality of the patient is also itself somatopsychic in nature.

The somatic basis for personality is probably widespread, involving the cortex, basal ganglia, hypothalamus, and nuclei in the walls of the third ventricle whence impulses are relayed to the various somatic systems with their accessory constitutive organs.

Important among these organ systems are the endocrine glands whose essential secretions are rapidly being discovered. In the case of some few of these substances administration to the human being has brought about such far-reaching changes that it may truly be stated that there is a chemical basis for personality.

The somatopsychic psychiatrist approaches the patient before him more as a medical specialist who realizes that the mind has a body. We feel that we should at least make the effort to affect the personality of the patient not only by words and surroundings but also by chemical means as we find them.

The problems of social adjustment are mental problems; the mental experience is "environmentogenic" or "exogenous." Environmental situations of numerous sorts may operate to injure the mind of the individual. These "traumatic situations" are regarded in somatopsychic medical practice as equally potent with somatic disease in affecting the personality and the mental status of the patient.

Small traumata, often repeated, seem to gather force by each repetition. The person is said to become sensitized; he becomes a "psychic allergic."

A thorough evaluation of the chemical status of the patient's soma is a necessity in any search for an etiological basis. For some years it has been known that certain illnesses leave chemical traces which may be considered residuals, and which can be detected by skin tests or by more precisely denoted serological methods. According to somatopsychic medical practice, these are the cases to be followed over a period of years to determine what becomes of their mental reactions. One can not avoid the conjecture that it may be the secondary and the tertiary stages of these former—perhaps childhood—diseases which constitute the condition precedent for the later development of misfits and derelicts whether in education, industry, or in any other aspect of social adjustment.

One of the marvelous things about us human beings is not that so many become insane, or neurotic, or delinquent, or criminal, or psychologically dependent but that so many of us do not fall into these sequelae of somatic disease or of the savage ruthlessness of the natural forces of reality.

—Harold Inman Gosline

Physicians Needed For Army Service

The physician, like every other American, has become actively interested in our national security and stands ready to contribute his services as required for military preparedness.

THE HYPERSYSTOLIC SOUND:

an Occasional Source of Error in Auscultatory Blood Pressure Determinations

ALBERT E. TAUSSIG, M.D.

St. Louis, Mo.

THE auscultatory method of determining systolic and diastolic blood pressure, first devised by Korotkow, is the one in general use in our country. This is chiefly because of its great convenience and in spite of the fact that there are, inherent in the auscultatory method, possibilities of error from which the oscillatory methods are free. Of these the one that most frequently causes mistakes is the so-called auscultatory gap (1) (trou auscultatoire, auskultatorische Luecke). This is a period of silence that ordinarily begins some distance below the point of systolic pressure and ceases with the reappearance of the vascular sound some distance above the point of diastolic pressure. Occasionally, however, this period of silence occupies the first portion of the auscultatory blood pressure series. Under these circumstances no sound at all is heard when the first pulse appears below the inflated cuff and the systolic pressure may be recorded 20 mm. or more below its true level. Grave errors may thus result unless the auscultatory method is controlled by palpation of the radial pulse, as it always should be.

ANOTHER error which should no longer be committed, but which is surprisingly prevalent, lies in considering the diastolic pressure not at the point where the brachial artery sound is dulled but at the point where it ceases. Ordinarily this interval, the last phase of the Korotkow series, is brief, only a few millimeters, so that the error is inconsiderable. Sometimes, however, the reverse is true, especially in aortic insufficiency and in hyperthyroidism. Here the diastolic pressure may be, let us say, at 60 mm. Hg., but the point of silence 30 mm, or more lower. Indeed the arterial sound may persist when all the air has been released from the cuff so that we have known the diastolic pressure to be recorded as zero. Even in these cases the diastolic pressure can almost always be determined. It has been shown by comparison with graphic methods (2) that in aortic regurgitation a blurring of the arterial sound can be made out that corresponds accurately to the diastolic pressure.

A MUCH less frequent source of error has so far as we know not been described. It is observed occasionally in patients with very high pulse pressures, especially in aortic insufficiency, hyperthyroidism and extreme hypertension. If in such patients the cuff is inflated beyond the point of systolic pressure, it will occasionally happen that a systolic sound will still be audible over the brachial artery; and this sound will persist unchanged even when the cuff is inflated to the limit permitted by the manometer. Ordinarily this sound, when it occurs, is so feeble that it can be heard only by listening very closely; but occasionally it may be loud enough to permit of confusion with the first true Korotkow sound which marks the point of systolic pressure.

The cause of this hypersystolic sound appears to be the violent impact of the pulse wave upon the upper edge of the occluding cuff, the sound being transmitted through the tissues of the arm to the stethoscope placed in the bend of the elbow. Theoretically one might expect this sound always to be heard. That this is not the case is doubtless due to its

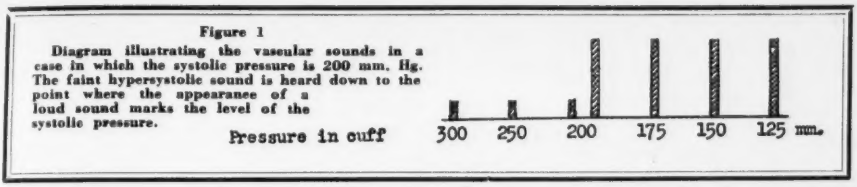

Figure 1

Diagram illustrating the vascular sounds in a case in which the systolic pressure is 200 mm. Hg. The faint hypersystolic sound is heard down to the point where the appearance of a loud sound marks the level of the systolic pressure.

extreme feebleness under ordinary circumstances. It is only when, on account of a high pulse pressure, the impact of the blood column upon the upper edge of the cuff is unusually violent that the sound may be loud enough to be audible. Other factors, such as the conductivity of the tissues, must also enter, for the sound is not invariably heard in cases of extremely high pulse pressure nor at all times in the same patient.

THIS hypersystolic sound can be distinguished from the true first Korotkow sound not only by its relative feebleness but also by the fact that the two sounds are not quite in rhythm. If in a suitable patient the cuff is inflated well over the point of systolic pressure and the rhythm of the sound described above carefully noted, and if then the air is very slowly released from the cuff, there will be heard at the point of systolic pressure a louder sound coming too late in the series, so that the last hypersystolic sound acts as a grace note to the first true systolic sound (see figure 1). Usually the hypersystolic sound ceases immediately with the appearance of the true systolic sounds. Occasionally, however, if the air is let out of the cuff very slowly, the hypersystolic sound may persist for several beats into the first Korotkow phase, so that several of the brachial artery sounds may seem to be preceded by grace notes (see figure 2).

I HAD thought this observation of purely academic interest and of no practical importance until I was taught otherwise by an experience at staff rounds in one of our best hospitals. The patient, a case of aortic insufficiency, was being demonstrated by the interne in charge. The systolic blood pressure was stated to be above 300 mm., that is, higher than the highest sphygmomanometer reading, the diastolic pressure being stated to be 36 mm. As this was an incredible situation, the interne was instructed to estimate the systolic pressure by radial palpation and with some confusion reported it as being 185 mm. On examination it was found that the patient showed the phenomenon described above to an exquisite degree.

IN cases with very high pulse pressure, a faint knocking sound, synchronous with the heart beat, may sometimes be heard over the brachial artery when the sphygmomanometer cuff is inflated far above the point of systolic pressure. This sound is probably due to the impact of the blood column upon the upper edge of the cuff. If the latter is slowly deflated, this hypersystolic sound will be found not quite in rhythm with the true Korotkow sounds. A recent experience indicates that the phenomenon may lead to an erroneous blood pressure determination.

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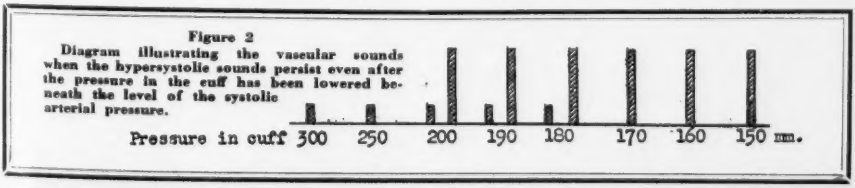

Figure 2

Diagram illustrating the vascular sounds when the hypersystolic sounds persist even after the pressure in the cuff has been lowered beneath the level of the systolic arterial pressure.

HISTAMINE
and Allergic Reactions

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IN a paper on cosmetic dermatology recently, the theory of a causal relationship between histamine released or formed in the tissues and allergic manifestations accompanying the use of certain cosmetic materials on hypersensitive individuals was advanced. The caution of two very able pharmacologists, Abel and Kuhota, is recalled. "The existence of these points of community in the action of substances so utterly unrelated chemically as histamine and certain metallic ions, forbids any assumption that the production of similar effects by unknown constituents of some organ and/or tissue, indicates the presence therein of histamine, or any substance related to it," was what they said. Some further evidence on this point is presented here.

The theory of causal relationship between histamine released or formed in the tissues and allergy does not permit actual and irrefutable proof. Further statements bearing on the subject should be of interest. Controlled clinical or experimental proof may be adduced later. It will be forthcoming, and be definitely beneficial in preventive and curative medicine, including the field of cosmetics.

CHEMICALLY, histamine is derived from the amino-acid, histidine, through the loss of CO_2. The reaction, as given by Clark (*Applied Pharmacology*, pp. 610, *et seq.*), is as follows:

Histamine is produced from histidine only when the latter loses its carboxyl group before it loses its amino group.

Traces of histamine can usually be found whenever there is a breakdown of protein. The quantity is insufficient ordinarily to exert any pharmacological action. Moderate amounts of histamine are found in ergot. It is believed to be one of the active principles of ergot, although the quantity is too small to have a very pronounced action.

WHAT are the possibilities of a causal relationship between histamine and allergic reaction? The following statements bring the relationship to the fore. The caution of Abel and Kubota, cited above, must also be borne in mind.

A pronounced effect is produced when proteins are broken down and histamine formed through the action of certain bacteria, for example. The effect varies with the amount of histamine produced through the breakdown of protein. Histamine and/or histamine-like substances make their appearance whenever tissues are injured, as by burns or wounds. It has been shown that these substances are responsible for the secondary shock in such cases.

Whenever tissue is injured, these substances, and consequently the histamine-like effects, may be observed. The effects of histamine, of surgical shock, of peptone poisoning and of anaphylactic shock are very similar. The sensitivity of different animals and even of different individuals to histamine varies greatly. For example, the guinea pig is readily killed by histamine. The mouse can survive relatively enormous doses. There is little easily available information regarding the effect of histamine upon man. It is anticipated that shortly much more will be known of the relationship of histamine and histamine-like substances to the human organism.

Symptoms arising from poisoning by paraphenylendiamine and those from histamine are strikingly similar. Another striking similarity is the difference in their effects upon different animals. The strict-

ly localized edema, most conspicuous in dogs, cats and rabbits, seems to have nothing in common with the nervous manifestations, which are the main symptoms in the case of these substances in guinea pigs, frogs and mice. In the latter, no edema occurs.

There is here a definite suggestion that the similarity between paraphenylendiamine poisoning and histamine poisoning may be due to the fact that intoxication by paraphenylendiamine produces histamine in free form within the tissues.

The same symptoms and general reaction may be observed in poisoning by a large and diverse group of animal and vegetable origin, as well as by certain poisonous chemicals.

With thallium acetate, for example, we have somewhat the same clinical picture plus a depilatory action which is specific for this chemical through the sympathetic nervous system. The very fact that the edema from histamine poisoning is an action due to histamine as a poison to capillary endothelium recalls that arsenic and gold salts are also classed as capillary poisons.

ANOTHER significant fact bearing upon the theory is a condition of pigmentation about the eyes of large numbers of women. The pigmentation bears directly upon the question of selectivity of ill effects. The orbital region shows increased pigmentation and pruritus. These women deny applying any eye cosmetics or hair dye or bleach of any kind. They do, however, admit partaking by ingestion of a coal tar derivative in the form of a sedative or antirheumatic. Acetylsalicylic acid has been a common remedy with these women. We hesitate to inject it into the discussion because almost any group of women with any ailment whatsoever will admit taking aspirin.

IT may be of interest to refer to the published work on perfume dermatitis. There it is shown that the combined action of perfume and sunlight together with the catalytic presence of copper causes the pigmentation and the other symptoms.

This experience has been repeated many times. An unfavorable reaction has often taken place after ingestion of coal tar derivatives and exposure to active sunshine. The following case history is interesting. A physician had taken frequent lengthy exposures to sources of intense ultraviolet radiation with impunity. He had also taken neocinchophen without ill effects on numerous occasions. One evening he took 15 grains of neocinchophen and exposed the skin of his entire body to radiation of ultraviolet. Within a few hours he had a generalized edema of the superficial tissues and painful joints. He was ill, becoming bedridden for six weeks. This and other cases might be properly called results of the combined action of coal tar plus ultraviolet rays.

The symptoms in this and similar cases are curiously reminiscent of those of histamine poisoning.

Summary

WE predicate the existence of some common activating agency which causes many different substances to present the same clinical picture. Histamine gives a clinical picture which is, in fact, indistinguishable from that of so-called allergic reaction. The latter is often traced to the application of certain cosmetics and coal tars.

We predicate that we have these responses when and if a toxic substance causes the formation of sufficient histamine in a person to arouse the symptoms associated with histamine poisoning. It is irrelevant whether the histamine is produced by cosmetics or any other agency.

There may not yet be sufficient clinical data to sustain the theory advanced. The decomposition of an amino-acid can and does produce a series of basic products which have strong pharmacological reactions. Histamine, toxic base of histidine, is such a basic product. Its action is not irreconcilable with the effects of certain chemical drugs and physical applications on susceptible individuals.

18 EAST 89TH STREET.

Observations on the
URINARY EXCRETION OF VITAMIN C

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THE test for vitamin C in the urine offers a fairly satisfactory method for quickly determining whether patients ingest the proper amounts each day. Observers have determined that the minimum daily intake of vitamin C per day ranges from 21 to 30 milligrams for the normal adult [1]. Observations on the blood of patients consuming fairly satisfactory diets have shown that the vitamin C content of the blood varies from 1,000 to 2,300 milligrams per 100 cc. Symptoms attributable to mild vitamin C deficiency have been found in patients showing a blood content of 0.254 to 1.08 milligrams in each 100 cc. The amount in the blood stream increases very quickly on the administration of proper amounts, and falls rapidly when the supply is inadequate.

The capillary fragility test was recommended as a test for vitamin C deficiency [2]. Experience with a large group of patients suffering with various diseases has demonstrated that the test is frequently positive when the urinary output of vitamin C is constantly normal. The test is not a reliable indicator. Many patients with high blood pressure show very marked reactions to the capillary fragility test, whereas the urine or blood estimation of vitamin C is within normal limits.

TABLE I

Number of Tests on Each Patient	Number of Patients	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
3	40	50	53	15
4	33	45	64	25
5	23	48	50	17
6	23	44	60	33
7	9	27	27	7
8	13	37	52	15
9	8	31	30	11
10	14	55	76	19
11	9	31	45	23
12	8	42	39	15
13	2	9	12	5
14	5	29	35	7
15	2	5	20	5
16	6	29	39	28
17	2	15	13	6
18	4	19	32	21
19	3	14	29	14
20	2	19	15	6
23	3	29	29	11
34	1	15	18	1
39	1	15	19	5
73	1	29	31	13
96	1	28	52	16
	213	665 (36%)	840 (46%)	318 (17%)

STUDIES on urine specimens have shown that very little is excreted until the intake exceeds about 40 milligrams per day. In tuberculosis, and some other infections, the intake must be larger to induce the usual rate of excretion. Eighty per cent of the intake of vitamin C is excreted during the ensuing five hours.

Modern methods offer suitable technics for determining the status of vitamin C in a given patient. Frequent blood determinations are impossible in practical life. The urine test offers a simple and reliable test when carefully performed.

Method and Material Used for Study

THE urine determinations were made on fresh specimens. The dichlor-phenol-indo-phenol titration method was used [3]. The test was always completed within five minutes after the urine was passed. The minimum output in 100 cc. was considered to be 1.5 mg. based on the normal excretion of 1,500 cc. of urine in 24 hours.

The normal excretion of vitamin C in 24 hours was taken as 22.5 mg.

Two hundred and thirteen patients were observed over varying lengths of time. All patients had three or more determinations. 1,823 tests were made. The time period covered was from May, 1937 to November, 1938. The largest number of examinations on any one patient was 96. Repeated examinations were made at fixed periods, so as to determine the amount excreted in relation to the time of eating.

The study of Table I demonstrates, according to the excretion standard accepted, the insufficient excretion of vitamin C in the unspecified diet. A state of vitamin C deficiency fluctuation exists in many patients. Physical changes in the quickly reparable stages of life are not likely to be apparent when a part time deficiency exists. When the recuperative processes occur more slowly physical changes may become obvious as a result of this temporary deficiency. These changes would come on gradually during the advanced aging years and be irreversibly fixed before recognition.

The relationship of part time deficiency to chronic disease processes of obscure etiology can only be determined by rearranging the routine diet on the basis of an arbitrary normal amount of vitamin C excretion. Observations made through the years on such patients would demonstrate the relation of a fixed excretion of vitamin C to diseases the etiology of which is unknown today. The study would also substantiate the standards of today or furnish information for establishing a correct standard.

Seasonal Findings

THE hypothesis has been advanced that vitamin C deficiency is a factor in the onset of acute rheumatic fever. In the eastern section of the United States the seasonal incidence of rheumatic fever is well known. A study throughout the year to determine when vitamin C deficiency is most common should coincide with the seasonal occurrence of rheumatic fever. The data observed on this phase are presented in Table II.

Table II indicates that the theory of a relationship of vitamin C deficiency to rheumatic fever may be ill founded. There is a higher percentage of less than normal tests during the season when the disease is less common. The exact situation could only be proved by a prolonged observation on the cases which actually developed rheumatic fever, but the curve trend is contrary to the hypothesis. The contrary suggestion is made in relation to the occurrence of acute anterior poliomyelitis in this region. Animals have been found more susceptible to the disease when on low vitamin C rations, and in this study the vitamin C content of the urine was lowest in the acute poliomyelitis season.

Fluctuating Deficiency

THE inconstancy of supposed normal findings is well visualized by the study of Table III, which records the findings of Case 213 of this study. This patient had 96 tests extending over a period of nearly two years. The patient was following her own dictates as to food.

Twenty-nine per cent of the time this patient was below the standard normal accepted for this study. The patient had considerable trouble with the teeth and gums and also complained of a tired feeling and aching in the joints and muscles. The institution of a regulated regimen led to marked improvement. Many other patients were observed in the same manner. The conclusion is justified even with our

TABLE II

Season of Rheumatic Fever Nov., Dec., Jan., Feb., March			Season of least Rheumatic Fever Apr., May, June, July, Aug., Sept., Oct.		
Below Normal	Normal	Above Normal	Below Normal	Normal	Above Normal
218 12.8%	286 16.8%	126 7.1%	455 20.9%	538 31.7%	200 11.8%

TABLE III

Case 213

Number of Tests	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
96	28	52	16

present questionable standard that fluctuating vitamin C deficiency is a subject of clinical importance. The same fluctuating state existed in many other patients as shown in Table II. The details of each case would be of no value.

Value of Controlled Amount of Vitamin C in the Diet

IN a few cases the amount of vitamin C was so fixed that at all three meals an adequate amount according to the standard accepted was available. The value of this method is well shown in Table IV which covers Case 188, Table V which covers Case 199, and Table VI which gives the data in Case 201.

Frequent Low Determinations

THE situation which exists in patients with what we might call subscorbutic symptoms, namely, pains in their muscles and joints, and spongy gums, is well illustrated in Table VII which gives the findings in Case 209.

TABLE IV

Case 188

Number of Tests	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
15	1	13	1

TABLE V

Case 199

Number of Tests	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
18	2	11	5

TABLE VI

Case 201

Number of Tests	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
	2	11	5

TABLE VII

Case 209

Number of Tests	Number of Tests Below Normal	Number of Tests Normal	Number of Tests Above Normal
23	14	8	1

Many of the other cases fell in this same group. The details of each would be of no value. A modicum of benefit occurs in all such patients, and this is particularly noticeable by physical changes in the gums and disappearance of aches and pains over the body with increased vigor when they are placed upon a specific diet. The incidence of respiratory infections was also reduced to a marked degree.

Comment

EVIDENCE is presented to demonstrate according to an arbitrarily accepted standard that the uncontrolled diet leaves many patients in a state of part time vitamin C deficiency. Subscorbutic manifestations can be corrected by proper dietetic measures.

Amounts of vitamin C that will permit the excretion of at least the standard accepted for this study should be included in the three meals. Observations over long periods suggest that the general level of good health will be increased by this procedure.

Urine determinations of vitamin C are satisfactory for routine clinical procedures.

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510 OCEAN AVENUE.

BRAIN TUMOR SIMULATING PRIMARY CEREBRAL VASCULAR DISEASE

Clinical Criteria for Differential Diagnosis

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THE approach to a subject dealing with differential diagnosis could begin with a study of the anatomical changes, and reference to pathological alterations and even biochemical factors might perhaps yield some interesting data. However, in this communication no attempt will be made to utilize any of these considerations. This is to be strictly a clinical analysis of a problem frequently confronting the physician at the bedside. The neurologist perhaps meets with these cases more than others, and in the main may not find much that is unfamiliar in the material here presented. A paper on this subject would therefore seem superfluous for the neurologist or neurosurgeon. In general we meet with and discuss this differential diagnosis daily and attempt to transmit it to colleagues and students. Nevertheless in recent years it has seemed more and more apparent that some of the criteria essential for accurate diagnosis, though stressed by many, have somehow not been so evident to others.

At too frequent intervals we see patients with intracranial neoplasms that have been diagnosed and treated for primary cerebral vascular disease. Sometimes we see them after this has continued for too prolonged a period for the patients' welfare. If we can focus the attention of such observers on the criteria that will enable them to recognize the presence of an expanding intracranial lesion in patients they would otherwise have mistreated for vascular disease, this communication will have served a useful purpose.

THE clinician as a rule does not look upon a patient with an acute hemiplegia as a perplexing problem in diagnosis. The paralysis he knows is the result of a pathological process in the contralateral cerebral hemisphere. The diagnosis is simplified when further examination reveals the general clinical evidences of cardiovascular renal disease. He usually and with no hesitation then correctly labels the case as one of primary cerebral vascular disease. We are at this time not particularly concerned whether he considers this as embolic thrombosis, or hemorrhage. If the patient does not present evidences of cardiovascular renal involvement he may be somewhat more cautious in making such a diagnosis. The laboratory may come to his assistance and reveal an underlying

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syphilis or diabetic factor, and x-ray may reveal a skull fracture.

THUS far, however, the physician has concerned himself mainly with a study of the clinical picture present at the time of his examination. What has preceded this clinical picture? The condition must be regarded as the end result of the disease. Such a process may be very acute and immediate with little of import in the patient's past playing any role in its production. On the other hand events may have been developing for some time prior to the occurrence of the status found at the time of examination. It is a careful scrutiny of these past incidents that is all important in the diagnosis of such an intracranial syndrome. A detailed history with particular attention to the sequence of events as they occur is frequently of far greater importance for accuracy of diagnosis than the findings noted at the examination made of the "end result" hemiplegia.

Many cases could be cited, but time permits only presentation of two:

CASE I. A fifty-year-old housewife was seen at her home in consultation with Dr. Ralph Deutsch. Examination revealed a typical left hemiplegia with left pyramidal tract signs, Babinski, non-elicitable abdominal reflexes, paralysis of the left upper and lower extremities, hyperreflexia, and a left central facial paresis. The fundi were negative. Blood pressure 130/84. Heart examination was negative, and it was stated that she had no evidences of syphilis or diabetes. The immediate story was that for three weeks there had occurred twitching of the left hand, usually for several minutes, succeeded by transient weakness of the left hand. In none of these attacks had consciousness been interrupted. On the day preceding the consultation, following one of these attacks, she developed the complete left-sided hemiplegia, without, however, losing consciousness. Further questioning elicited the history that three years prior to the present illness she had a "stroke" and was in a coma ten days—with a residual left hemiplegia from which she recovered in a few weeks. In the succeeding three years she was free from any motor power impairment, performed her household duties adequately, but complained often of severe headache, and whereas she had been a placid, congenial housewife, she had become extremely irritable and quarrelsome.

Comment:

THE occurrence of a left sided hemiplegia at the age of fifty years without associated loss of consciousness at first thought suggests cerebral thrombosis, even though there be no evidences of vascular disease elsewhere in the system. However, the three weeks history of twitchings of the left hand, succeeded by transient weakness in the hand, suggests Jacksonian seizures, and directs attention to probable cortical irritation. Rarely does primary vascular disease produce such cortical fits, and this should immediately make the examiner consider the likelihood of a focal pathological process other than vascular disease. Were there no other information in the anamnesis, such a clinical syndrome warrants relegating the diagnosis of primary vascular disease to a secondary role, and the patient must be considered as a brain tumor suspect. This would be so even if there are present findings implicating the cardiovascular renal apparatus. It would be the exception indeed, if such a patient did not have an expanding intracranial process. Hospital observation including air studies of the ventricular system should be instituted.

THIS patient, however, presented additional data of utmost importance. The so-called stroke three years prior to the present episode had unusual and significant features. A coma of ten days duration is extremely rare in primary cerebral vascular disease, and particularly so if the patient emerges from the coma and lives. Coma produced by primary cerebral vascular disease persisting more than twenty-four hours as a rule constitutes a grave prognostic omen. And if in vascular disease such a patient does survive, it would be most unusual for the paralysis to disappear in a few weeks. When vascular disease is so extensive as to produce a ten-day coma with a complete hemiplegia, it is logical to assume that the paralysis would persist at least for a prolonged period. In this patient, then, the recovery from the coma and the paralysis suggested the diagnosis of a brain tumor into which a hemorrhage had taken place. The persistent headache and personality changes during the succeeding three years tended to corroborate such a diagnosis.

The examiner accordingly advised her admission to a hospital. It was later

ascertained that she was observed at a hospital where it was felt for a time that the hemiplegia was the result of cerebral thrombosis. Operation, however, following encephalography, disclosed a subcortical neoplasm which on microscopic examination was reported as glioblastoma multiforme.

CASE II. F. R. A 64-year-old housewife was admitted to the neurological service of Kings County Hospital June 12, 1939, and discharged November 1, 1939. A history could not be elicited from her because of the mental state. From the relatives it was learned that the onset of her illness was one year prior to admission with lapses of memory for recent events. This became more marked and about two months prior to admission there occurred delusions of reference. Five weeks prior to admission there first developed weakness and a sense of numbness in the left upper extremity. At that time she walked about and offered no complaints referable to the left lower extremity. When examined at the hospital she was euphoric, restless, spoke incessantly, was garrulous, facetious and jocular. Blood pressure 130/85—though reported to have been higher previously (170/100). The fundi revealed blurring of the right optic nerve head, and retinal sclerosis bilaterally. The left nasolabial fold was flatter than the right, and the tongue deviated to the left when protruded. The left upper and lower limbs were paretic with diminished tendon reflexes. There was no Babinski. Sensory examination was made difficult by her mental state, but it was the consensus of opinion of all examiners that she did not perceive stimuli as well on the left half of the body. She was transferred to the neurosurgical service where ventriculography revealed a displacement of the ventricular system from right to left. The right occipital pole was displaced downward and anteriorly. At operation a tumor mass about the size of a lemon was encountered in the parieto-occipital region at a point inferior to the junction of the temporal and occipital horns of the lateral ventricle. Occipital lobectomy was performed. Microscopic diagnosis of the tumor tissue was spongioblastoma.

LABORATORY FINDINGS:
SPINAL FLUID: Total protein —72 mg. %
Wassermann—negative
Colloidal gold—negative
Blood Wassermann—negative
Blood chemistry—urea 45; sugar 123
Urine—negative.

Comment:

THIS patient when admitted to the hospital presented a mental picture and the usual "end result" hemiplegia. With evidences of retinal sclerosis and moderate hypertension at the age of 64 years, one would be justified offhand in attributing the cerebral disorder to primary vascular disease. Here it is important to note that primary vascular disease occurring gradually—and not acutely, usually involves the entire half of the body equally, i.e., the face and upper and lower extremities show at first mild weakness and slowly develop more marked motor power impairment. In this case there were at first the mental symptoms, then the left upper limb became paretic with no impairment of the lower extremity, and later the entire left hemiparesis developed. Such a "piecemeal" form of progression of motor power or sensory impairment must arouse suspicion of an expanding intracranial lesion slowly encroaching and invading structures, as was found on operation in this case.

Summary

IT is not the intent of this paper to summarize at length the symptoms of brain tumor, or to discuss the syndromes resulting from involvement of varying localized areas in the brain. All textbooks have comprehensive descriptions of this phase of the subject.

In large neurological and neurosurgical clinics patients with brain tumor that have been previously diagnosed as cerebral thrombosis or cerebral hemorrhage are seen too often. Sometimes the differential diagnosis is extremely difficult, and failure to recognize the true condition present justifiable. It is obviously no longer necessary to wait for choked disc, vomiting, slow pulse, and all the evidences of increased intracranial pressure, before the diagnosis of brain tumor is arrived at. When these symptoms occur the diagnosis is apparent, but it is usually too late for any therapeutic success from neurosurgery. The diagnosis of brain tumor should be made long before such symptoms of increased intracranial pressure occur.

Motor or sensory involvement of cerebral origin, developing in any patient, without frank evidences of cardiovascular renal disease, should make the physician think of an expanding intracranial process, especially when syphilis, diabetes and inflammatory disease are ruled out.

Motor or sensory involvement developing gradually may result in vascular disease from slow occlusion of the lumen of an artery from pathology of the vessel

such as occurs with thrombosis. Such a syndrome, however, usually affects simultaneously all parts of the opposite side of the body. There is at first mild weakness of the face and upper and lower extremities. Later these parts all become increasingly affected until finally there is present complete paralysis of the entire side (hemiplegia). A similar increasing simultaneous sensory involvement may occur. Such a gradual clinical picture warrants the diagnosis of cerebral thrombosis. When, however, the gradual development commences in one limb, and then spreads to the face and other limb, or a patient develops first an aphasia or a mental picture and later the disturbances of the extremities in a "piecemeal" fashion, then we can visualize an expanding, growing process, starting in one part of the brain, and slowly invading the adjacent structures. That form of clinical picture justifies the diagnosis of neoplasm or any other type of expanding lesion.

THE occurrence of convulsive seizures, especially for the first time in the third decade of life, should make the clinician question the label epilepsy. So-called aurae of convulsive seizures should be evaluated with extreme care. They may point to a definite cerebral localization. Jacksonian seizures should always stimulate exhaustive study for a focal cortical or subcortical lesion. Rarely indeed, if ever, does primary vascular disease produce Jacksonian seizures.

Finally, patients with frank evidences of cardiovascular renal disease may also have a brain tumor, and a diagnosis of primary cerebral vascular disease is not justified if such a patient develops a cerebral clinical picture conforming to any of the types described in this communication.

890 PARK PLACE.

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SCHEUERMANN'S *Disease*

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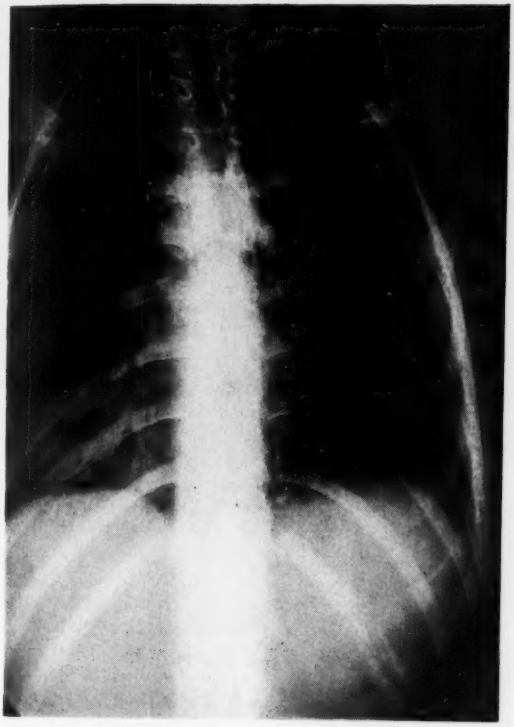
THIS osteochondritis deformans juvenilis dorsi or vertebral epiphysitis is a type of kyphosis occurring in the growth period and is characterized clinically by a sharp onset of symptoms consisting of dorsolumbar pains without radiation which disappear in a recumbent position. They are exaggerated by fatigue and movement and are located in the lower dorsal or dorsolumbar areas.

Scheuermann[1] first described this condition, which causes wedge-shaped vertebral bodies thinner in front than behind with lack of sharpness of the edges and of the growth margins between the bodies and the epiphysis.

The pathology is that of nuclear hernias through the spongiosa of the vertebral body resulting from the repeated traumatisms of working in unusual positions. For this reason, the disease is termed "apprentice kyphosis." The existence of these hernias changes the vetebral balance, resulting in retarded growth, an imperfect ossification and defective development. There may be a fusion of the complementary anterior osseous points. The superior vertebral body edges are uneven and calcification is not



equal; these edges being densified in some areas and decalcified in others.

Mau[2] considers the conditions described as adolescent kyphosis to be the same as Scheuermann's disease. This is a necrosis of the epiphyses of the vertebral bodies[3] which seems to differ somewhat from the osteochondritis juvenilis coxae.[4]

OSSIFICATION disturbances are secondary to a hereditary disproportion between the weight and the strength of the vertebral body. Mutschlechner[5] believes the vertebral bodies grow faster than the sternum so that there is a curve forward. There appears to be a connection between adolescent kyphosis and the cartilaginous nodules[6] which are found frequently on the anterior surfaces of the wedge-shaped vertebrae.[7] Cases have followed injury[8] and there is one form which has an hereditary tendency which is described as the heredotraumatic kyphosis of Bechterew.[9]

Case Report

D. M. aged 26, was first seen August 7, 1939, and complained of marked pain. X-ray of the spine showed narrowing of all intervertebral space. Clinically she had a rigid spine. This appears to be a vertebral epiphystis which is resulting in a chronic vertebral arthritis as the spine is becoming progressively more rigid, which sequence of events is similar to cases reported lately by Lemmerz and Moreno.[10]

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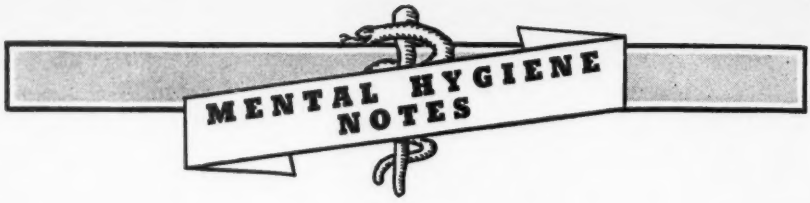

MENTAL TRANSITION CASES

Two Useful Men

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New York, N. Y.

ON January 4, 1938, an unmarried young man of twenty-one was sent to the Mental Hygiene Clinic by the Department of Medicine of our Hospital. Treated there for digestive disorders he had improved, but he continued to be "nervous and jittery." He had a job in a shop where metals were assayed and ores were evaluated. He was using a spectrometer and other precision instruments and had to be extremely careful at his work, which he was. He did not like the insanitary condition of the place, with the excessive amount of unpleasant and harmful gases and fumes prevailing there. Good ventilation was impossible because of the opposition of the other workers. At the same time he was dissatisfied with his chiefs, especially with one of them who was irritable and seemed to be unjust and severe and to find fault easily. Our patient was a serious student of engineering at Cooper Union where he was occupied four evenings weekly, from seven to ten. This gave him much homework, a good deal of which filled his free days, Saturdays and Sundays. That, of course, left him little or no time for recreation. He was also interested in photography and was just then reading literature on the subject.

He was living with his parents and a younger brother and was on excellent terms with them. His family history or rather the history of each of its members showed no illness that one might connect with the patient's present mental state. During his childhood he had been generally "weak and sickly"—he could not give more definite information — and his mother constantly had trouble with him on account of his health. This may have resulted in an over-solicitude that had made him more helpless, more impatient and excitable and less adjusted in his contact with the world. He himself admitted that he had been badly spoiled. This situation was partly—unfortunately not totally—corrected in his high school years, when he faced the other boys, played often outdoors and was less under his mother's supervision and influence.

He was slim and pleasant looking, spoke well and correctly and, with the exception of the mother-son relationship, he had full insight into his case. His intelligence was probably not above the average, and certainly not below, but it appeared enhanced by his culture.

HE smoked moderately, often only three cigarettes daily, and did not drink.

His appetite was fair. He had had no sex relations and, although heterosexually inclined, he was only superficially interested in girls and most of the time forgot them. Nor did he have many male friends or cultivated friendships. He explained this by his being so engrossed in his work and study. This was a strong contributing factor, but his attachment to his *mother,* while wearing off more and more, was undoubtedly still interfering with his free movements in this respect. Whether or not, in the end, this may have turned out to be for his good, one thing seems probable, that if he had been entirely untrammeled, from a mental point of view, he would have neglected some of his work, would have been less studious, and would have found time for more all around sociability.

All in all he was *unhappy* and *unadjusted* and, although working so assiduously, *he regarded his life, and life in general, as futile.* He had never made any suicidal attempt and was far from considering it. But he was *gloomy and morose* and easily excited and never indulged in *the pleasures of his age,* like dancing or playing, which he had discontinued with his graduation from high school. Nor did he read novels or literature or anything not related to science, particularly to physics or chemistry. He just glanced over a newspaper only when he happened to pick it up somewhere and he very rarely went to a show or a movie.

HIS chief problem was his *difficulty with respect to work,* in spite of his deep interest in his profession. That was the complaint for which he had come, although he had thought that he principally suffered from some internal trouble.

He refused to bring his mother to the Clinic, not wishing her to know about his coming there. Nor, of course, would he allow a social worker to visit his family.

He was not self-centered. His trend was of a schizoid nature, but there was no *real psychosis.*

After a few conversations, in which his childhood and adolescence were jointly reviewed with him and in which he was made to see and to understand the probable underlying cause or principal cause of his handicap, he failed to return and his examiner lost sight of him.

BUT on January 10, 1939, a year later, upon receiving one of the official routine follow-up notes from our institution, he came again. This time his mood was completely changed. He said he had not found it necessary to visit the Clinic because he had improved quickly. He reported great progress. He was still busy with his studies, but he concentrated less although he benefited more, that is, he needed less time to achieve the same results. That gave him some leisure to meet his friends and to take out socially a young woman for whom he cared. He claimed to be "normal" now, which really meant, on his way toward a better adjustment if no unfavorable event would upset his adaptation.

The important thing in this simple case, for the general practitioner, was the fact that this patient first complained about physical symptoms and that he originally appealed to a non-specializing clinic. It is evident that the ordinary doctor, no matter how conscientious, would be of little help in such troubles if he ignored or disregarded the mental angle of his patients.

A MAN of thirty-three, also sent by a clinic for internal diseases, but from another hospital, complained, on May 17, 1938, of being "nervous and unable to adjust himself to things in general." He "could not find a balance and was not clear," he said. He depreciated his work, and was sure that his employers did not like it. He was single, occupied as a sign painter, but he often stayed away from work because "it was difficult for him to concentrate." He was apparently quite proficient in his trade and would find jobs easily, but he gave them up frequently.

His relationship with his fellow workers was very loose—indeed, he resented their companionship and kept aloof from them and from everybody else as much as possible. Born in New York, he graduated from public school and for some time he went to an industrial school, studying

"mechanical drafting," but later lost interest in it. Then he took a course in lettering and this led him to sign painting. This left him unsatisfied because he had artistic inclinations and he had hoped to enter the career of art-lettering for magazines and fancy books.

As a child he was as playful as other children, but in the critical adolescent years he began to isolate himself from people. Now he was living alone, never thinking of marriage. He had had sexual intercourse a few times and was sexually potent, but on the whole not enthusiastic about it. He had had a girl friend four years before, but neglected her, and she married somebody else; two years later, he became acquainted with another one, but *as soon as she showed some familiarity with him,* he stopped seeing her. "Girls distress me," he said.

HIS father died at fifty of cancer of the stomach when the patient was nine years old and the patient lived with his mother until twelve years ago when she remarried. Previously she worked and made a living for her children. Patient was undoubtedly suffering from the impact of his mother's strong character, but not in the sense of an attachment to her. On the contrary, he had always been mistreated by her and he detested and feared her. He described her as "domineering and overbearing," in contrast to his father, who had been gentle and very nice to the patient. She demanded monetary aid from him, which he refused. He seemed to have succeeded in freeing himself from her direct authority, but the old conflict between his desire to be himself and his fear of her, or her shadow, looming large over his existence, was not extinguished. It was rather superimposed on his split tendencies. Now, he was avoiding her not only because he did not like her, but also because she never lost an opportunity to admonish him. He also rarely met the only other member of the family, a married sister, who felt it her duty to police him morally. He liked her little boy, though, but he had to sacrifice his desire to see him because of his hatred for his sister.

Although he had first gone for medical assistance, thinking himself organically ill, he was physically well. Before coming to our Clinic and during the last few years, he followed a sensational course of lectures on psychiatry, read some treatises on psychology and went to several psychiatrists, but his condition grew worse.

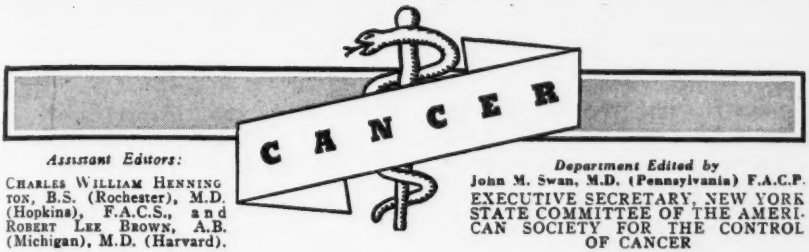
HIS intelligence was normal. His memory was often blurred. His speech was colorless, monotonous and hesitant and needed prodding or urging, although in itself correct.

He was not certain about his dreams. Sometimes they would seem to come when he was half awake, after sleep, in bed. One time he was badly frightened, as a "man who resembled no one he knew was coming into the room to choke him"; another time someone else, also unidentified, threatened him. But these phenomena did not seem to have been real hallucinations.

At the beginning he said he was improved after our conversations, but he soon fell back into his ordinary apathy. Gradually, however, a slight, but more or less lasting, amelioration was visible. The patient became more sociable. He joined a club, attended meetings, but did not dare get up and speak even when he had something to say. He had to absent himself on days when he was "bored and tired." There was also some progress in his working endurance. He was able to work at the semi-job of WPA employment at his trade, as a sign painter, until this and other similar projects were abolished by the authorities. Then he joined a society for the unemployed and he astonishingly spoke with real enthusiasm about the activities of that organization. Also, after hearing a speech elsewhere he seemed to have been greatly thrilled—a rare event in his life.

HE had been reading but little in the past and later he had given it up altogether for years. But now he became slightly interested in some newspaper articles.

—Concluded on page 470



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CANCER IN THE YOUNG

"EXPERIMENTAL investigation has shown clearly that senility of itself is not a direct etiological factor in cancer. Because cancer can be induced as readily in a young as in an old animal, if not more readily. Furthermore, when cancer has arisen in a young animal, the cells soon grow as readily, again if not more readily in a young animal, than in an old one." (Cramer 13)

The physician in studying his patients has for years taken the attitude that cancer is not a problem to be seriously considered in young people. He has often told his patient that he is "too young to have cancer."

In the State of New York the Health Department, in its Analysis of Mortality Statistics for 1937 (58), reports the following deaths from cancer in persons under thirty years of age: Buccal cavity and pharynx, 4; digestive tract and peritoneum, 33; respiratory system, 10; uterus, 16; other female genitalia, 5; breast, 5; male genito-urinary organs, 12; skin, 6; other or unspecified organs, 59; total, 150.

THIS review is prepared as an endeavor to reach an understanding of the frequency of the occurrence of cancer in young people and the character of the growths found in them.

In 1935 Schreiner and Wehr (75) reported that up to October 1, 1933, 19,824 patients had been examined at the New York State Institute for the Study of Malignant Disease (Buffalo). Of these 537 were thirty years of age or younger; 2.7 percent. However, of the patients examined only 12,381 actually had cancer, or 62.45 percent of those examined.

The distribution of these cases was as follows: Cancer of the skin, 27; orbit, 20; brain, 2; lip, 4; oral cavity, 23; nasal cavity, 15; salivary glands, 16; thyroid body, 3; branchiogenic cancer, 1; epiglottis, 1; larynx, 3; bronchus, 2; lung, 1; mediastinum, 6; pleura, 2; gastro-intestinal tract, 24; (stomach, 2; sigmoid, 3; rectum, 18; anal canal, 1); breast, 25; cervix, 78; cervical canal, 2; ovary, 23; body of the uterus, 3; chorionepithelioma, 2; vagina, 4; vulva, 3; kidney, 8; adrenal body, 1; penis, 3; testicle, 24; bone, 48; sarcomata, 72; Hodgkin's Disease, 64; leukemia, 20; miscellaneous, 9.

In 1938, Hall and Bagby (31) reported that since 1908, 134 patients at the Barnard Free Skin and Cancer Hospital (St. Louis), all under thirty years of age, had been shown by histologic study to have had cancer. During the same thirty-year period, seventy-two cases in the same age period had been, by clinical examination only, diagnosticated as having cancer. Of the "proved" cases of cancer, the youngest was a girl, aged 8½ years, who had a squamous cell carcinoma of the skin, which developed on an area of xeroderma pigmentosum. Two similar cases were seen in

boys aged 9 and 18 years, respectively.

OF the 134 proved cases, eleven were cancers of the skin of the face, five of the skin of the nose, two of the upper lip, ten of the lower lip, four of the mouth, seven of the gastro-intestinal tract, twenty-two of the breast, five of the skin of the extremities, six of the female generative organs other than the uterine cervix, fifty-seven of the cervix, and five others, three of which were the cases of xeroderma with carcinomatous change. Of the seventy-two cases diagnosticated clinically, seventeen were cancers of the skin of the face, eight of the skin of the nose, one of the upper lip, six of the lower lip, one of the rectum, two of the mouth, nine of the breast, one of the ovary, twenty-six of the cervix, and one of the penis.

Of the seven "proved" cases of cancer of the gastro-intestinal tract, one was an adenocarcinoma of the stomach, grade II; one an adenocarcinoma of the ampulla of Vater, grade III; one an adenocarcinoma of the colon; three adenocarcinomata of the rectum; and one a squamous cell carcinoma of the anus, grade III.

EXCLUDING cancer of the breast and the uterus, 1.7 percent of all cases of cancer occurred in patients thirty years ot age or younger. Of patients with cancer of the cervix 7.4 percent were in the first three decades of life and of those with cancer of the breast 4.3 percent were in the same age period.

The authors say: "The main purpose of this paper is to re-emphasize the all important fact that carcinoma can and does occur in persons thirty years and younger in all anatomic locations. The age of the patient must not influence one in procrastination and 'watchful waiting.' "

Daily (15) after studying the records of 2,181 cases of squamous cell carcinoma of the cervix uteri from the Howard A. Kelly Hospital (Baltimore) from 1913 to 1930 found the youngest patient was twenty-two years of age. He says that there has been a slight increase in the incidence in women between the ages of twenty and thirty years and advises the physician always to keep in mind that it may occur in young women.

According to Gutmann (29) cancer in patients under thirty years of age occurs more frequently in the ovaries, testicles, lungs, skin, kidneys, intestines, stomach, uterus, and liver, and is less frequent in the esophagus and the other organs. He is also of the opinion that the susceptibility to cancer of females, compared with males, is especially obvious in the young. Furthermore, that cancer is more malignant in the early than in the later years of life. However, from the pathological viewpoint, there is no essential difference in the growths found in the young from those found in the aged.

Schnorbusch and Kujath (74) believe that cancer in the young is an item of evidence in the question of the inheritance of cancer. They studied the records of thirty families in which there were cases of juvenile cancer. In two of these families they found other cases of cancer in the young. In one a patient died of cancer of the stomach with involvement of the transverse colon, at twenty; a niece died of cerebral cancer in infancy. In the other family the patient died at thirty-eight also of cancer of the stomach. This patient is eight years older than the thirty years rather arbitrarily selected as the upper limit for inclusion in juvenile cancer. However, in the family of this patient there was a cousin who died of cancer of the choroid plexus at nine. Furthermore, in this family also there are three nieces who presented hemangiomata, an aunt who had a pigmented nevus and a brother with a tumor of the scapula, "the size of a hazel nut." (No histology given)

Holmquist and Nelson (34) point out the relation between congenital deformities and cancer in the young. For example, the association of adenomata and fibromata with hermaphroditism and of gliomata with spina bifida.

Cancer of the Bladder, The Kidney and the Prostate

DUFF (16) analyzed the deaths from cancer of the bladder, the kidney and the prostate of holders of policies in the

Metropolitan Life Insurance Company between the years 1917 and 1928. He found that 23.5 percent of the deaths from cancer of the kidneys and the adrenals occurred in persons between one and twenty-five years of age.

Gilbert (25) reports two cases of sarcoma of the prostate in boys aged sixteen and eighteen years respectively. He points out the difficulty in diagnosticating between cancer and prostatic abscess. He advocates aspiration biopsy as a diagnostic method.

Munger (56) reports a case of embryonal adenosarcoma of the kidney in a boy, aged six years, and a case of adenocarcinoma (clear cell) of the kidney in a girl, aged fourteen years.

Wilms tumor is the common renal malignant neoplasm of childhood. (Priestley 68)

Cancer of the Breast

GUY (30) reports a case of lymphosarcoma of the breast in a girl, aged fifteen years.

Cancer of the Colon and Rectum

PFEIFFER and Wood (64) report a case of cancer of the transverse colon in a boy, aged seven years.

Ogilvie (61) reports the case of a boy, aged thirteen years, who had a mucoid carcinoma of the cecum.

Lockhart-Mummery and Dukes (46) point out that in families with adenomatosis of the colon, cancer in that organ or in the rectum often begins at the 30 to 40 age period or even earlier.

Chorionepithelioma

MATHIEU and Palmer (50) report two cases of chorionepithelioma in patients aged nineteen and thirty years, respectively.

Simard (77) reports a case of chorionepithelioma in the ovary of a girl aged seventeen years.

Gough (28) reports two cases of chorionepithelioma in women aged twenty-three and twenty-nine, respectively.

Caldwell (8) reports two cases in women, aged twenty and twenty-three years, respectively.

Peightal (63) reports a case of chorionepithelioma in a woman aged twenty-nine years.

Cancer of the Endocrine System

FEIN and Carman (22) report a case of medullary carcinoma of the suprarenal body in a woman, aged twenty-seven years. The growth, which was very vascular, had undergone cystic degeneration and hemorrhage.

Potter and Morris (66) report five cases of carcinoma of the thyroid body, three in girls, aged fourteen, fifteen and nineteen years, respectively, and two in boys, aged fifteen and nineteen years, respectively.

Schlesinger, Cargill and Saxe (73) say that a man or woman who lives in a nongoitrous district and presents a palpable nodule in the thyroid body should lead the examiner to the opinion that the nodule is potentially cancerous, especially if the patient is under thirty years of age.

Evans (20) reports a case of "malignant lymphoma" of the thymus in a boy, aged five years.

Cancer of the Larynx

KIRSHBAUM (43) reports a case of basal cell carcinoma of the larynx in a woman aged twenty years, with metastasis to the ovary and the brain.

Cancer of the Liver

JAMIESON (36) reports a case of primary cancer of the liver in a boy, aged three and one-half years. The primary symptoms were abdominal pain, anorexia and loss of weight.

McRae (48) reports a case of "malignant adenoma" of the liver in a male, aged six months.

Cancer of the Lung

BEARDSLEY (3) reports a case of adenocarcinoma of the lung in a female, aged sixteen months. At the age of ten months a nodule was excised from the lumbar region which the pathologist reported to be adenocarcinoma. Six months later there was a recurrence in the operation scar. This was examined histologically and

was reported to be a metastatic growth from some obscure internal carcinoma. At the end of another six months she died and at autopsy an adenocarcinoma of the left lung was found, which was believed to be the primary tumor.

Cosin (12) reports a case of "pseudomyelomatous carcinomatosis" in a man, aged twenty-five years, from a primary bronchogenic carcinoma.

Cancer of the Mouth

FRANK, Enfield and Miller (24) report a case of papillary squamous cell carcinoma of the tongue in a baby eleven days old. The child was living, without recurrence, two years later. Treatment with surgery and postoperative x-rays.

Cancer of the Ovary

EISS (18) reports a case of follicular cell carcinoma of the ovary in a woman, aged twenty-nine years.

Johnson and Wills (37) report a case of sarcoma arising in an ovarian fibroma in a negress, aged twenty-four years.

Trillat and Puthod (81) report a case of lymphosarcoma of the ovary in a pregnant woman, aged twenty-two years, and a case of malignant ovarian cyst ("low grade") which had its origin in the Wolffian body in a woman, also pregnant, aged twenty-seven years.

Bland and Goldstein (4) report a case of granular cell carcinoma in a child, aged seven years.

Saccone and Gordon (72) report a case of Krukenberg tumor of the ovary in a woman, aged thirty-two years. The "diffuse infiltrating carcinoma of the stomach" was found at autopsy.

Comando (11a) reports a case of Krukenberg tumor of the ovary in a woman, aged twenty-four years.

Hixon (33) reports a case of myxosarcoma of the ovary in a woman, aged twenty-nine years.

Preston and Gay (67) report a case of primary chorioma of the ovary in a woman, aged twenty-two years. The tumor metastasized to the lungs, the spleen, the liver, the peritoneum and the kidneys.

Durfee, Clark, and Peers (17) report a case of primary lymphosarcoma of the ovary in a woman, aged twenty-three years. There was no generalized metastasis.

Anderson and Sheldon (1) report a case of granulosa cell carcinoma of the ovary in a female child, aged three years and nine months.

IN a study of seventeen cases of dysgerminoma of the ovary from the material in the laboratory of the Department of Gynecology of the Johns Hopkins Hospital (Baltimore) Novak and Gray (60a) found that nine of the patients were under twenty years of age. All were under forty.

Fischer (23) reports a case of theca cell tumor of the ovary in a woman aged thirty-four years.

Simecek (78) points out that Krukenberg tumors of the ovary occur with greatest frequency in women about thirty-five years of age.

Tuthill (82) reports a case of malignant endometriosis resembling arrhenoblastoma in a girl, aged nineteen years.

Seegar (76) reports nineteen cases of dysgerminoma of the ovary from the laboratory of surgical pathology of the Johns Hopkins Hospital (Baltimore) and seventy-nine from the literature. Of these ninety-eight cases only seven were over forty-four years of age. The oldest patient of the nineteen Johns Hopkins cases was thirty-nine.

Novak (60b) reports three cases of arrhenoblastoma of the ovary in patients aged 24, 22, and 17 years respectively.

Norris (59) reports a case of arrhenoblastoma in a woman aged thirty-one years.

Parks (62) reports a case of granulosa cell tumor of the ovary with precocious puberty in a girl aged 5 years and two months. The patient was the size of an eight year old girl. Her breasts and nipples were well developed; there was an abundant growth of pubic hair, wide hips, and a slightly protuberant abdomen. Menstruation began when she was four years old.

Cancer of the Pancreas

AUNOY, Ogden and Halpert (2) found two instances of columnar cell carcinoma of the pancreas in patients under forty

years of age among forty autopsied cases in the Charity Hospital (New Orleans).

Sarcomata

BOVENZI (6) reports a case of sarcoma which started in the neighborhood of the vertebral column in a child, aged six years.

Neumann (57) reports a case of sarcoma of the pleura in a child aged two years and nine months.

Ransom (69) reports a case of sarcoma of the urachus in an infant. The patient was living, without recurrence, two years after surgical removal of the growth followed by deep röntgen irradiation.

Cran (14) reports a case of fibrosarcoma of the adrenal in a woman, aged thirty-eight years.

Matyas (51) reports a case of lymphosarcoma of the stomach in a woman, aged thirty-one years.

Eller and Schonberg (19) report a case of melanoma in a woman, aged nineteen years. The patient had recurrence and metastasis to the cervical lymphnodes. Following surgery and deep röntgen irradiation the patient was living at the end of four and one-half years.

Wright (83) reports a case of primary lymphosarcoma of the cecum in a female child, aged four and one-half years.

Fagge (21) reports a case of sarcoma in a man, aged thirty-four years, which originated in the acetabulum and which was erroneously diagnosticated tuberculous arthritis.

MIDDLETON, Pohle and Ritchie (53) report a lymphosarcoma which originated in the mediastinum and metastasized to the skeletal system. The patient was a boy, aged sixteen years.

Muller (55) reports a case of Hodgkin's disease in a girl, aged seventeen years.

Marten and Meyer (49) report a case of chloroma in a woman, aged thirty years.

Keys and Walker (42) report a case of lymphosarcoma of the duodenum, which simulated ulcer, in a man, aged twenty-three years.

Roehm, Riker and Olsen (71) report a case of chloroma in a girl, aged thirteen years.

Taussig (80) reports a case of liposarcoma of the vulva in a woman, aged twenty-nine years.

Boman (5) reports a case of primary spindle cell sarcoma of the pericardium in a man, aged twenty-seven years.

Tovaru and Vasilescu (84) say that while sarcoma of the prostate is a rare tumor, it is more common in children than it is in adults. They report a case of leiomyosarcoma in a child, aged four years, with diffuse involvement of the entire bladder wall.

Charache (9) reports seven cases of neurogenic sarcomata. A man, aged twenty years; a girl, aged fourteen years; a boy, aged thirteen years; a man, aged twenty-seven years; a woman, aged twenty-five years; a woman, aged twenty-two years; and a girl, aged fifteen years.

Choisser and Ramsey (10) report two cases of angioreticulo-endothelioma of the heart in men, aged twenty-six and thirty years, respectively.

Goldsmith (27) reports a case of leiomyosarcoma of the jejunum in a woman, aged twenty years.

Cancer of the Stomach

COMANDO (11b) reports a case of Hodgkin's disease (lymphogranulomatosis) of the stomach in a man, aged twenty-seven years.

Jones and Carmody (39) report a case of lymphosarcoma in a boy, aged nine years. This patient was living without evidence of recurrence at the age of twenty-two years, thirteen years after subtotal gastrectomy, and gastro-enterostomy, checked by gastro-intestinal x-ray study. Six years after this study, when the man was twenty-eight years of age, he reported by letter that he was enjoying perfect health and that he had a great appetite for all sorts of food.

Jones (38) reports a case of chloroma in a man, aged twenty-five years.

Renner and Goodsitt (70) report a case of "malignant sacrococcygeal teratoma" in an infant, aged six days.

Cancer of the Uterus and Adnexa

CASES of cancer of the female generative organs, except the ovaries, in young girls and women, have been reported by many authors: Cancer of the cervix in a girl aged sixteen months by Kohlkass (44); in two women, aged twenty-five and twenty-eight years, respectively, by Phaneuf (65a); in a girl, aged sixteen years, by Glass (26); in a woman, aged twenty-six years, by Stähler (79); in a girl, aged sixteen years, by Ludwig (47); and in a girl, aged ten years, by Morse (54). Cancer of the body of the uterus in a woman, aged thirty years, by Hunter and Holden (35); and in a woman, aged eighteen years, by Mazzola (52). Cancer of both the body and the cervix in a girl, aged two years and three months, by Lockhart (45); cancer of the Fallopian tube in a woman, aged thirty years, by Bunnag and Bachman (7); two cases in women, both aged eighteen years, by Kahn and Norris (40); and in a woman, aged thirty-two years, by Phaneuf (65b); a case of "malignant adenoma" in a girl, aged sixteen years, by Hirst (32). Another case of uterine cancer in a girl, aged fifteen months, is reported by Kehrer and Neumann (41).

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Government to Need Temporary and Part-Time Civilian Medical Officers

In the interest of the National Defense we print the item below.

THE expansion of the army creates a need for about 600 civilian medical officers in various grades for temporary and part-time service. The duties of full-time officers will be to act as doctors of medicine in active practice in hospitals, in dispensaries, and in the field. The duty of part-time officers will be to report for sick call at a fixed hour each day and to be subject to emergency call at all times.

The Civil Service Commission in making this announcement calls particular attention to the fact that part-time officers will be able to continue their regular practice. In order that this may be done, appointments to the part-time positions will be made of medical officers in the vicinity of the place of duty.

Information concerning these positions may be obtained from the Secretary of the Board of U. S. Civil Service Examiners at any first- or second-class post office, or from the United States Civil Service Commission, Washington, D. C. Physicians are urged to apply at once. This work is of the greatest importance to the success of the National Defense program.

VIGNETTE AND FACET

The Episode of Edison's Sickness

I HAVE just read that the great man, Thomas A. Edison, once had a severe sickness, in which he would not mind the doctors, nor the nurses, nor his wife. He may have rated the greatest living inventor of his day, but in this sickness, his wife said, he was just a bad boy, refusing to take his medicine, telling several doctors and nurses where to get off often.

Not only that, but he poured oil on the fire, so to speak, when the doctors, who were trying to keep his light burning while they changed a fuse or something, were informed by him that "Ananias was the father of medicine."

Now the grand old man, Edison, could have invented a better excuse than that for not taking his medicine.

Did the doctors then and there retaliate? Did they turn out the electric lights and light the candles? No. They knew Ananias, too, was a great inventor in his day, but in an inconvenient place lies unable to make answer or a scintillating comeback, while Mr. Edison, on record, blew a fuse.

It seems that in his said sickness, Mr. Edison wanted to argue with the doctors about his medicine—what is the stuff? What is it supposed to do? How does it act and why, if any?

Now was that nice? Please don't interrupt. When he made my incandescent light I did not argue, act rude as usual and say, "Mr. Edison, what is this electricity stuff that makes the carbon filament glow (sometimes)? You don't know? Well, if you can't tell me what electricity is I won't use it! Ma! bring the lamp! No, sir, I'm funny that way. And then, too, Mr. Edison, I like my electric light bulbs clear glass, that I may see what I am getting—see the juice go in here and come out there. Ye gods, they give me frosted bulbs—take it away! Explain what electricity is and frosted bulbs!"

It seems that in Mr. Edison's sickness his batteries were down and he just had to have them charged—go to bed and take medicine. Of course, Mr. Edison knew his batteries could not be charged free. But he objected to the electrolite they wanted to put in—not having invented the electrolite he couldn't take it. So he called them; he called Ananias; he called his wife—and she called the doctors. But he stood them all in a row.

Well, if Mr. Edison did not want his batteries charged and decorroded (castor oil smeared about on his positive chin connections), it was just too bad.

Furthermore, Edison received all sorts of letters and offers of special cures and all kinds of advice—and since he was full of advice already, surely his cup ran over.

Now this same Ananias was a disciple of Jesus, and had cured the blindness of a great man, Saul, who too had talked out against the Power that cured him.

Well, well. So then besides the castor oil for ALL Mr. Edisons we recommend that the electric pad be changed to a nice big sinapism, for a speedy restoration to sweetness and light.

Harry Nelson Jennett, M.D.
Kansas City, Mo.

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MENTAL HYGIENE NOTES

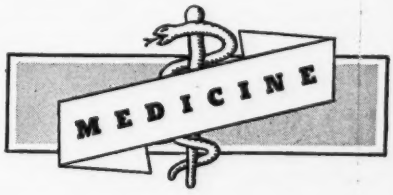
—Concluded from page 462

At one of our last sessions he spoke about going into business in his own line, with a partner, and, although this decision cooled off soon, it was in itself a sign of progress.

All in all there is now, in January, 1939, some definite evidence of improvement, and the prognosis is no longer doubtful. 207 WEST 106TH STREET.

The Effect of Sulfanilamide Compounds On Endocarditis

R. H. MAJOR (*American Journal of the Medical Sciences,* 199:759, June 1940) reports the use of the sulfanilamide compounds in 7 cases of subacute bacterial endocarditis. In 15 cases of the same type of endocarditis observed in the past six years prior to the use of the sulfanilamide compounds, none of the patients had recovered; autopsy showed the typical lesions of endocarditis lenta. In this series of cases petechiae were present in only 50 per cent and enlarged spleen in 60 per cent; blood culture was positive in all but one case. Since April 1938, prontosil or sulfapyridine has been used in the treatment of 7 cases of endocarditis lenta; of these 3 apparently recovered from the endocarditis, one treated with prontosil by intramuscular injection and sulfanilamide by mouth, and 2 treated with sulfapyridine by mouth. In these cases the temperature became and remained normal, the sedimentation rate became normal and all symptoms subsided. One of these patients died from cardiac failure one month after apparent recovery from endocarditis. Previous to the development of endocarditis, this patient had several attacks of severe cardiac failure; autopsy showed old aortic and mitral valve lesions in addition to recent endocarditis involving both valves. These later lesions were in the process of healing and cultures from the valves were sterile. The other two patients are both clinically well, one for more than ten months, the other for six months. Of the 4 patients who died, one was treated with prontosil, one with sulfapyridine, the other 2 with both drugs. In 3 of these cases blood cultures became negative during treatment; in one instance blood cultures were constantly negative for six months with occasional afebrile periods, but the sedimentation rate remained high—"the picture of an acute infection." Although this series of cases is small, the author feels justified in drawing the following conclusions: In endocarditis lenta, treatment with prontosil and sulfapyridine may result in a fall of temperature to normal, negative blood cultures, and marked improvement in the patient's condition. In some cases, where the vegetations are small, healing may result. In other cases where the vegetations are more extensive, "the organisms will probably live for a long time embedded at the base of the vegetations although the blood stream remains sterile." The blood sedimentation rate is of great value as an indicator of the activity of endocarditis. In the cases in which there was apparent recovery, the rate fell to normal. In the cases in which the rate remained high, the subsequent course indicated that the disease process remained active, even though fever subsided and the blood stream was sterile for a time. In 2 such cases the organisms reappeared in the blood when sulfapyridine was discontinued.



COMMENT

An interesting article which should be read in its entirety. Chemotherapy will undoubtedly solve the problem in the future but at the moment no evidence seems conclusive.

M.W.T.

Quantitative Prothrombin and Hippuric Acid Determination as Indicators of Liver Damage

S. J. WILSON *(Journal of Laboratory and Clinical Medicine,* 25:1139, Aug. 1940) notes that various investigators have found that a decrease in prothrombin is associated with liver damage, but no attempt has been made to correlate the level of the plasma prothrombin with the results of any liver function test as indicating the degree of liver damage. In these studies, the author has determined the prothrombin of the plasma by the two-stage method of Warner, Brinkhous and Smith, as he has found that the one-stage methods of Quick and Smith, *et al.* do not determine the quantity of prothrombin in the blood of certain individuals with sufficient accuracy for the purpose of this study, although these methods are of value as an index of the tendency to bleed. The level of prothrombin, thus determined, was compared with the amount of hippuric acid excreted after the ingestion of a known quantity of sodium benzoate (Quick liver function test) in 41 patients without obstructive jaundice or biliary fistula. The series included patients with cirrhosis of the liver, Banti's syndrome, pernicious and aplastic anemia and leukemia, as well as those without evidence of liver damage. It was found that in cases in which the hippuric acid excretion was from 0.86 to 2 gm., the prothrombin was 19 to 37 per cent. of normal; with a hippuric acid excretion of 2 to 3.9 gm., the prothrombin was 33 to 90 per cent. of normal; and with a hippuric acid excretion of 3.9 to 4.56 gm., the prothrombin was 70 to 100 per cent. normal. There was no "consistent correlation" between plasma prothrombin and fibrinogen, especially in cases in which an infectious process was present. In all the cases studied in which the galactose tolerance test was within normal limits, the bromsulfalein dye test showed widely varying results. These findings show a definite correlation between the level of the plasma prothrombin and the excretion of hippuric acid in the Quick test. Observations made at operation or autopsy in a number of these cases showed that these two tests were "sensitive reflectors of liver damage." The author notes that blood transfusions are of little or no therapeutic value in the control of the hemorrhagic tendency associated with marked reduction of the prothrombin level, as "the prothrombin cannot be replaced by blood transfusion in sufficient quantity."

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COMMENT

It seems that these tests are more reliable than any others.

M.W.T.

The Clinical Significance of Electro-Cardiographic Low Voltage QRS Groups with Normal T Waves

A. S. BARRITT, JR. *(Brooklyn Hospital Journal,* 2:147, July 1940) reports a study of 94 cases in which the electrocardiogram showed low voltage QRS complexes. In 36 of these cases the T waves were normal; in this group 20 patients (55 per cent.) showed no clinical evidence of heart disease; 9 had organic heart disease without failure, and 7 varying degrees of cardiac insufficiency; only 2 were in decompensation. In 58 cases, there was some abnormality in the T waves. In 40 cases there were low voltage T waves in lead I or in leads I and II; all but one of these patients showed definite clinical evidence of cardiac disease. There were 18 cases with T wave "negativity"; all of these had definite cardiac disease, 12 coronary occlusion. In the entire group of 58 patients with some abnormality of the T waves associated with low voltage QRS complexes, there was only one case without definite heart disease, and 7 cases in decompensation. It is evident that low voltage QRS complexes in the electrocardiogram are of definitely less clinical significance if the T waves are normal, than if the latter show some abnormality.

COMMENT

Much help is gained from a correlation of the EKG with the teleoroentgenogram.

M.W.T.

Stored Blood for Transfusions

C. P. STEWART *(Edinburgh Medical Journal,* 47:441, July 1940) reports the use of stored blood for transfusions in 427 cases in Edinburgh, Scotland. Provisions for the collection and storage of blood for transfusion were made especially for the treatment of war emergencies, but the blood has also been used in the treatment of various medical conditions in which transfusion was indicated. In this series of transfusions with blood stored up thirty days, there were 58 reactions of all types (13.6 per cent.); in 8.2 per cent. the reactions were classed as medium or severe. In cases in which blood not more than fourteen days old was used (299 cases), the incidence of all reactions was 12.3 per cent., of medium or severe reactions, 7.3 per cent. The author concludes that storage of blood for not more than fourteen days does not increase the incidence of transfusion reactions; some evidence indicates that with blood stored for five or ten days the incidence of reactions is reduced. Stored blood is not indicated for all transfusions; in cases in which the indication for transfusion is to increase the defense mechanism and supply viable leukocytes, blood more than two days old should not be employed. Older blood seems to be as effective therapeutically as fresh blood when "the object of the transfusion is to supply fluid and oxygen-carrying power."

COMMENT

De Gowin and Hardin (Brit. Med. Jour. 1-5 [July 6] 1940) set a limit of ten days of storage at 3°-5° C. as safe for citrated blood and blood stored in dextrose-citrate mixture was safe after 30 days of storage.

M.W.T.

Human Sternal Bone Marrow in Hyperthyroid and Myxedematous States

R. M. JONES *(American Journal of the Medical Sciences,* 200:211, Aug. 1940) reports a study of the sternal bone marrow, obtained by sternal puncture, in 12 patients with hyperthyroidism and 7 with hypothyroidism, in comparison with 6 normal controls. In the hyperthyroid cases the bone marrow contained an average of 13.5 per cent. nucleated cells, over twice the average normal. In the hypothyroid cases there was an average of 2.4 per cent. nucleated cells, a little more than one third the normal. In 5 cases of hypothyroidism, thyroid feeding resulted in a marked rise in the percentage of nucleated cells in the sternal bone marrow. In hyperthyroidism the increase in nucleated cells was in the myeloid series and was greater in degree than in any other condition except chronic leukemias or certain severe anemias; but this increase "was not reflected in the peripheral blood."

+ Surgery +

Conservative Electrosurgical Excision of Subesophageal Gastric Ulcer

R. H. JACKSON *(Annals of Surgery,* 112:219, Aug. 1940) notes that various surgical procedures have been proposed for the treatment of gastric ulcers situated in the subesophageal area of the stomach. Radical resection in these cases requires a total or almost total gastrectomy—an operation not indicated in younger patients except for a malignant lesion. When the ulcer is indurated, penetrating or acutely perforated, surgical treatment is definitely indicated. The author reports a case of chronic penetrating ulcer in the subesophageal area of the stomach. In this case a groove resection was impossible and a Wells partial gastrectomy would have been "a formidable and hazardous procedure." Because of the possibility of malignancy, as indicated by marked induration of the lesion, several 1 cm. thick "shavings" were removed from the crater of the ulcer with the wire loop electrode of the electrosurgical instrument, after an incision had been made in the stomach. These specimens showed only chronic inflammatory changes with no evidence of carcinoma. Then both edges of the ulcer crater were repeatedly "beveled down" with the wire loop electrode, using the cutting and coagulating currents alternately until the muscle tissue was exposed and the gastric mucosa at the edges was normal; the base of the ulcer crater was then coagulated with a ball-pointed electrode. The denuded edges were sutured with chronic catgut (interrupted suture), the gastric incision closed and a posterior gastro-enterostomy done. The patient made a good recovery and has been free from symptoms for over a year; a roentgenological examination two months after operation showed the former ulcer site to be smooth. This operation, the author states, can also be employed in acute perforating ulcer in the subesophageal area.

COMMENT

This method of handling ulcers of this kind would seem feasible, especially when more radical procedures are for one reason or other inadvisable. The adoption of this procedure in handling perforating ulcers would seem to be less frequently indicated. It is encouraging to realize that there are many and varied procedures from which the experienced surgeon may select that one most likely to satisfy the requirements associated with each individual case.

T.M.B.

Adrenal Cortical Hormones in Traumatic Shock and Allied Conditions

H. SELYE and his associates at McGill University *(Canadian Medical Association Journal,* 43:1, July 1940) report experiments on animals subjected to the action of damaging agents or surgical procedures that produced typical symptoms and signs of shock. If large doses of the adrenal cortex preparation cortin were given to such animals, it was highly effective in counteracting the objective signs of shock. These objective signs were used as the criteria of the degree of shock and the effect of treatment, rather than clinical symptoms, as being more definitely measurable. It was found that a single large amount of cortin given when shock begins to develop is less effective than the same amount given in divided doses. Pre-treatment with cortical preparations was not found to be effective in preventing shock; if prolonged, such pre-treatment may cause adrenal cortical atrophy. The synthetic hormone, desoxycorticosterone, although active in maintaining adrenalectomized animals and in the treatment of Addison's disease, was not effective in the treatment of shock. Only active extracts of the adrenal cortex should be used in the treatment of traumatic or surgical shock, not synthetic hormones. In the light of these experiments such extracts "must be regarded as the most powerful hormonal agents which can be used for combating shock."

COMMENT

This paper stresses the point that only the active extracts of adrenal cortex give satisfactory results in the treatment of surgical

shock. In the light of his experiments the author fails to endorse the synthetic hormones. It is interesting to note that he was unable to prove the value of cortical hormone extracts used preoperatively to prevent shock. Much is yet to be learned as to the role of adrenal cortical hormones in traumatic shock and allied conditions. A great deal of attention is being focused on the problem by clinicians and research workers in this field. We await their conclusions in hopeful anticipation.

T.M.B.

The Prophylactic Use of Sulfanilamide In Abdominal Surgery

J. S. LOCKWOOD and I. S. RAVDIN *(Surgery,* 8:43, July 1940) report that at the University of Pennsylvania Hospital, sulfanilamide has been given following operation for acute appendicitis in all cases in which there was infection outside the appendix since 1936; the mortality from acute appendicitis has been reduced to 0.3 per cent. by this procedure. The lowest mortality previous to that time in a similar series of cases was 1.4 per cent. More recently the authors have used sulfanilamide prophylactically in bowel resections and in inflammatory and traumatic intestinal perforations. In 22 cases of colon resections of various types, 16 for carcinoma, in which sulfanilamide was given, there were no deaths from peritonitis; the one death that occurred in this series was due to coronary occlusion on the first postoperative day. This series of cases is small, but in view of the usual incidence of peritonitis as a cause of death in bowel resection, as shown by statistics from a number of large clinics, these results are encouraging. In one of the cases in this series, resection was carried out for acute diverticulitis of the cecum; when sulfanilamide was discontinued, spiking temperature, chills and jaundice developed, indicating the probability of a suppurative pylephlebitis; these symptoms were promptly relieved when sulfanilamide administration was resumed, and the patient made a good recovery. Sulfanilamide was also used in 6 cases of intestinal perforation. In 2 of these cases the peritonitis was localized and recovery would probably have occurred without the drug. In the other 4 cases the nature of the lesion and the condition of the patient indicated a grave prognosis. Three of these patients recovered; the fourth, a man seventy years of age, with widespread peritonitis, "lived long enough to develop a localized pelvic abscess", but died three weeks after operation of myocardial failure. While it is true that peritonitis of intestinal origin is a polymicrobic infection, and sulfanilamide is not fully effective against all the bacteria present, other conditions appear to be favorable to the therapeutic action of the drug; the number of contaminating organisms is relatively small, and cellular defense is present in most cases; and a satisfactory concentration of the drug in the peritoneal fluid can be rapidly obtained by the parenteral or oral administration of sulfanilamide. In the authors' series the toxic reactions to the drug were few (3 cases) and mild, and cleared up promptly on stopping the treatment.

Comment

There is increasing clinical evidence to show that the use of chemotherapy in certain varied groups of surgical infections is proving more and more helpful. Sulfanilamide has lessened the severity and shortened the course in reported series of cases of appendicitis. To just what extent it can be said to lower mortality is not entirely clear, but it can be positively stated that it has lowered and will if used further lower mortality and morbidity. Sulfapyridin has given excellent results in postoperative pulmonary complications associated with acute appendicitis. The prophylactic value of sulfanilamide in preparing patients for bowel resections has been attested by clinicians in several published reports. Further experiences with the drugs with which we are familiar, and with newer drugs sure to be forthcoming, should make the patient as safe for operation as modern technic has made the operation increasingly safe for the patient.

T.M.B.

Gastroscopic Observations in Cases of Gastric Distress After Operations On the Stomach

H. J. MOERSCH and W. WALTERS *(Surgery, Gynecology and Obstetrics,* 71:-129, Aug. 1940) report gastroscopic findings in 100 cases in which gastric distress developed after operation on the stomach (chiefly for duodenal or gastric ulcer). In

30 per cent. of these cases there was no gastroscopic evidence of gastritis or any abnormality of the gastric mucosa; these patients usually responded well to medical treatment. In 56 cases a diagnosis of gastritis was made; these patients did not respond so favorably to medical treatment and often required another operation. In the authors' opinion a poorly placed stoma with inadequate drainage of the stomach is an important factor in producing postoperative gastritis, whether there was some preexisting gastritis or not. In 5 cases carcinoma of the stomach was found; and in 6 cases a gastrojejunal ulcer was visualized. Gastroscopy is of definite value in the diagnosis of such lesions developing after gastric operations.

Comment

Many valuable contributions to the literature on gastroscopic observations have been noted recently. Some clinicians have become quite expert in the use of the gastroscope. Increasing experience with the instrument has made possible more reliable interpretations of the findings. It is no doubt a valuable diagnostic method and has its place among other procedures used by specialists in this field. It is well to realize the limitations of the method. Careful roentgenological examination systematically undertaken has a remarkably high percentage of proven diagnoses. The evidence presented in this paper is interesting, but certainly not convincing as to the necessity for gastroscopic observations in similar cases. To your commentator there seems to be considerable room for error, particularly in recognizing and interpreting findings in obscure, masked or borderline cases.

T.M.B.

Effects of Sutures on the Strength of Healing Wounds; Annealed Stainless Steel Wire Sutures

D. J. PRESTON *(American Journal of Surgery,* 49:56, July 1940) reports experiments on white rats in which skin incisions were closed with various suture materials; the wound and sutures were excised at the end of two weeks and segments tested for tensile strength with a special apparatus. The skin wounds closed with annealed steel wire showed the greatest average tensile strength and the least local reaction to the suture material. The lowest average tensile strength and the greatest local reaction to the suture were observed in skin wounds closed with No. 0 plain catgut. Gross infection was not noted in any of the wounds closed with the steel wire, but was present in some of the wounds closed with silk, chromic catgut and plain catgut. The type of suturing that gave the best results in tensile strength of the wound was the interrupted loose small bite stitch. The author reports illustrative cases showing the advantages and disadvantages of annealed steel wire sutures. In one case a contaminated abdominal wound healed without suppuration when closed with stainless steel wire. In such cases, wire sutures do not act "as a nidus of infection" but heal in and are covered by granulation tissue. In one case in which both wire and catgut were used to close the rectus sheath, disruption of the wound occurred because "the reaction of the tissues to the catgut with delay in healing occurred just the same as if the wire sutures had not been used." In cases in which the wire sutures alone have been used in closing abdominal wounds in the last two years, the author has not seen a case of wound disruption. One of the dangers of the use of wire sutures is puncture wounds of the surgeon's hands, which may break the sterile technique, or may result in infection of the operator if the operative field is septic. To avoid this danger a hemostat should be clamped over the end of the wire by the nurse before handing it to the surgeon. This also facilitates handling the wire and tying the suture knots. The chief advantage of the annealed wire suture is the absence of local tissue reaction with resulting increased tensile strength of the wound.

Comment

In surgery rapid firm healing by primary union is essential. Varied factors alone or in combination may interfere and cause unsatisfactory healing of one kind or another. The surgeon has learned in closing wounds to use discrimination in the selection of the suture material, the proper size and the best possible technic. He is best guided by the results he has obtained in his own experience in similar cases, and by a review of the results obtained

by other surgeons working under similar circumstances. Never before has he been afforded the wide choice of readily available and carefully prepared suture material. The absorbable sutures versus nonabsorbable controversy still rages. At present there is a growing tendency toward the adoption of silk in the closure of wounds, and in isolated clinics the use of stainless steel wire sutures is advocated. In the meantime I venture to say that throughout the country catgut enjoys the widest popularity. It is true that the enthusiasm for silk and wire in certain clinics has challenged the manufacturers of catgut to supply the very best possible products. In a previous comment I mentioned that the silk technic or wire technic requires more than the mere decision to use such material. Any deviation from the very exacting technic required in using these types of suture may result in failure. The same attendant detail in the use of catgut in operative wounds should insure equally good results. The case for silk and wire has been ably and enthusiastically presented by its proponents. The controversy still wages and this is a healthy state of affairs because thereby more attention is focused and concentrated upon the subject of wound healing. In the long run this means better surgical results. After all is said and done the sine qua non is a knowledge and respect for those qualities resident in the tissues themselves, the preservation of which is so necessary for good healing regardless of the material used. By all means in selected cases, having mastered the new technic, adopt silk or stainless steel wire in your wound closure, but don't let any one get the idea that all difficulties are thereby resolved. Certainly at this time no one would be justified in urging the universal adoption of either material. Catgut will continue to be widely used. If the same care and attention to every detail and requirement is observed, the results should be entirely satisfactory.

T.M.B.

+ Urology +

Staphylococcal Infections of the Renal Cortex

P. J. KAHLE and his associates (*Journal of Urology*, 43:774, June 1940) report 11 cases of staphylococcal infection of the renal cortex, 5 cases of carbuncle and 6 cases of cortical abscess. In the authors' opinion, these two lesions are distinctly different, and do not represent separate stages of the same lesion. According to their findings, the carbuncle is usually wedge-shaped and suppurative, separated from the cortex by a wall of thick fibrous tissue. The suppurating areas may or may not be connected with each other; the craters never contain large amounts of pus, and hence the lesion is not fluctuant, but "feels hard to the touch." The base is somewhat raised above the surface of the kidney, and the overlying tissue is thick and infiltrated, even if rupture has not occurred. The cortical abscess is round or oval; fluctuation is characteristic and can be determined even when the abscess is tense; the induration that characterizes the carbuncle is absent. When the abscess ruptures or is incised, the purulent contents are completely evacuated, leaving the cavity "rather soft and smooth to the touch." While these two lesions are pathologically distinct, the clinical symptoms are much the same. The characteristic symptoms of both carbuncle of the kidney and cortical abscess are chills, fever, costovertebral pain, and rigidity of the lumbar muscles. But all these symptoms and signs are not present in every case, and diagnosis may be difficult. In the authors' series, pain was present in all cases, always located in the costovertebral angle and aggravated by percussion or ballottement; in 3 cases pain was also present in the abdomen. Rigidity of the lumbar muscles was noted in all but 3 cases, 2 of carbuncle and one of cortical abscess. Chills were not present in 3 cases—one of these a case of carbuncle that had destroyed two-thirds of the kidney. Fever was not present in 2 cases—one case of carbuncle and one of abscess. In two other cases the degree of fever was not commensurate with the extent of the pathological lesion found at operation. In 9 of the cases in this series,

the urine was normal and gave negative cultures; in one case in which a carbuncle ruptured into a calix, pus and bacteria were found in the urine. Total renal function was normal in every case. In 7 cases in which the function of the two kidneys was tested separately, lower function on the affected side was demonstrated in only one case. Pyelography was done in 10 cases, only 5 of which showed definite deformity in the pelvis or calices. In 10 cases in which blood counts were made all showed a leukocytosis. While the diagnosis of carbuncle of the kidney or cortical abscess may be difficult in the early stages, this diagnosis is indicated in the presence of pain in the costovertebral angle aggravated by palpation or percussion, rigidity of the lumbar muscles, unexplained fever and leukocytosis, and a clear urine. If there is a history of a primary staphylococcal infection, such as a furuncle, the diagnosis is "almost certain." Treatment is surgical. In the authors' cases, nephrectomy was done in 6 cases, 2 cases of carbuncle, 3 cases of abscess and one case of carbuncle and multiple abscesses; partial nephrectomy was done in another case of carbuncle; one case of carbuncle and 3 of cortical abscess were treated by incision and drainage. There were no deaths in this series, a result that is attributed to the fact that most cases were operated on fairly promptly. The duration of symptoms up to the time of admission varied from one to twenty-eight days; the average time from admission to operation was 5.4 days; but 7 patients were operated within ninety-six hours of admission.

Comment

As in the skin and cellular tissues carbuncle has multiple solitary or confluent foci of infection, whereas the abscess is a single pocket of infection, so in the kidney do both these vicious lesions follow the same pathological pattern. It is very interesting further to note that, as the symptoms, signs and findings of all infections vary most widely and deceptively, so do these two kidney infections vary in the same way. One may say that reactions by the body are few when compared with the many forms of invasion. To elucidate these general principles into particular details would require rewriting and rearranging this fine abstract.

Renal Calculi; A Study of Papillary Calcification

E. C. ROSENOW, JR. (*Journal of Urology*, 44:19, July 1940) reports the examination of one or both kidneys in 239 consecutive autopsies at the Mayo Clinic, excluding cases of marked renal destruction resulting from pyonephrosis, pyelitis or very large calculus. Each renal pelvis was opened, the calix entered and the papilla examined for calcareous deposits. Plaques of calcareous material visible to the naked eye were found in the renal papilla in 53 or 22.2 per cent of these cases. These plaques were in various stages of development from minute intramedullary "bits" of calcium to large roughened surface plaques projecting into the renal calix. Microscopic examination of the papillae in 24 cases showing no grossly visible papillary plaques showed microscopic intramedullary calcification in only 4 instances. Calculi were present in 13 or 5.4 per cent. of the cases in this series; in 5 of these cases the calculi were adherent to the renal papilla and their removal caused papillary defects corresponding in size to some of the larger plaques observed. These findings correspond to those of Randall in 1937 and substantiate his theory in regard to the formation of renal stone. In 37 cases in which examination for bacteria was carried out, bacteria were found near to the regions of calcification in the renal papillae in 24 instances (64.9 per cent.), although there was no evidence of acute inflammation. This suggests that infection may play an important role in the formation of renal stone. If calcium is deposited when tissue is damaged by infection or necrosis, pathological examination would not show active inflammation. Probably other factors can produce such calcareous deposits in the renal papilla, and the findings reported indicate the relation of such plaques to calculus formation.

Comment

One advantage of this study is that it investigates the early stages of stone formation before clinical signs may be obvious and perhaps before x-ray studies may be conclusive. As always in these cases of precipitation of

the urinary salts infection is present and must be traced to its source for its own relief and that of calcareous deposits either as microscopic crystals or macroscopic sand, gravel or stones.

V.C.P.

Prostigmin in the Treatment of Ureteral Stone

A. J. SCHOLL *(Western Journal of Surgery, Obstetrics and Gynecology,* 48:493, Aug. 1940) reports the use of prostigmin, given by subcutaneous injection (1 c.c. of a 1:2000 solution), as an aid in the treatment of ureteral stone. In 15 cases in which this method was used it was "of definite help" in securing prompt passage of the stone in 7 cases. In 3 cases of small stones in the lower ureter, the stones were passed promptly after the first prostigmin injection without any ureteral manipulation. In the other cases, a soft ureteral catheter was passed "up to or by the stone". In no case were stone dislodgers, metal dilators or multiple catheters used. The author advises a trial of one or two series of prostigmin injections in cases of ureteral stone before resorting to "more extensive methods of manipulation or surgical removal."

COMMENT

Any means of relaxing the spasm of the ureter, always associated with stone in it, either constant, intermittent or remittent, is worth while. Prostigmin is one of the last means to be discovered and the most reliable means in use. Its doubtful or negative results may well depend on those cases in which the ureter is much thickened by infiltration distal to the stone. In such cases physical dilatation is necessary.

V.C.P.

Prostatic Calculi; Treatment by Subtotal Perineal Prostatectomy

R. B. HENLINE *(Journal of Urology,* 44:146, Aug. 1940) notes that prostatic calculi may be present for years without causing symptoms; in such cases no treatment is necessary. Symptoms result usually when some associated pathological condition develops—especially infection. The usual symptoms are urinary: frequency, nocturia, burning, dysuria and hematuria. Only roentgenographic examination will show the presence of prostatic calculi. Transurethral resection or a punch operation, or perineal prostatectomy with removal of some of the stones, may give relief from symptoms, but these procedures fail to remove all the calculi and infected tissue, and symptoms tend to recur. The author has recently employed a subtotal perineal prostatectomy, removing the calculi, the infected prostate and capsule, and leaving *in situ* only a small apical portion of the prostate. Adequate control of hemorrhage at the time of operation by means of sutures is important in order to avoid the necessity of bags or packing. With this operation impotence may result, and patients should be warned of this fact before operation; unless symptoms are so severe that possible impotence is "of relative unimportance", this operation probably should not be done. Five cases are reported in which this operation was done with good results. Urinary control was complete immediately following removal of urethral catheter in 4 of these 5 patients; in one case complete control was obtained in about two months. In all cases the symptoms were relieved.

COMMENT

The prostate is so complicated by its acini that when infection once penetrates and causes calculi the one permanent cure seems to be prostatectomy. Occasionally removal of the stones, free drainage and full antisepsis may cure. One must have the reservation, however, that relapse is possible at any time and that it becomes more and more probable with the years.

V.C.P.

Oxygen Ventilation in the Treatment of Bladder Tuberculosis

W. J. KETZ *(American Journal of Surgery,* 49:299, Aug. 1940) describes a method of treatment for resistant tuberculous cystitis persisting after nephrectomy for renal tuberculosis, which he has not found described elsewhere. It consists in irrigation of the bladder with pure oxygen through a catheter after the bladder is completely emptied. The catheter is removed when the bladder is "under slight oxygen

distention." These oxygen irrigations are given at weekly intervals. This method has so far been used in only 2 cases of tuberculous cystitis resistant to all other methods of treatment. In both the bladder symptoms were completely relieved by the oxygen treatment, and cystoscopic examination shows the ulcerations of the bladder wall healed.

COMMENT

Irrigation applies to fluids. Would not distention or insufflation be more scientifically accurate? So much for a little etymology. Medically such treatment may be compared with sunlight and air treatment of tuberculosis and hence be expected to benefit some or perhaps many cases.

V.C.P.

+ Pediatrics +

Vitamin P in Vascular Purpura

I. N. KUGELMASS (*Journal of the American Medical Association,* 115:519, Aug. 17, 1940) discusses the value of vitamin P in the treatment of vascular purpura in children. Vitamin P has been found to be a flavone dye compound, and clinical studies have indicated the value of flavone dyes in the treatment of purpuras due to decreased capillary resistance without alteration in the blood-clotting constituents. Capillary resistance in children varies with age and the nutritional status; various tests may be employed to measure capillary resistance in children, the most practical method for clinical use being the positive pressure test. A vitamin P concentrate, prepared according to Szent-Györgyi's method, has been employed in the treatment of a small group of cases of purpura in children. This concentrate contains 50 mg. per c.c. of the flavones eriodictyol glucoside and hesperidin. It was given by mouth in doses of 150 mg. In conjunction with treatment directed against the underlying cause, vitamin P was effective in relieving the purpuric manifestations in 2 children with allergic purpura, one child with infectious purpura, and an infant with nutritional purpura. The positive pressure test in these cases showed increasing capillary resistance concomitant with the clinical improvement. The vitamin P concentrate was ineffective in 2 cases of mechanical purpura in children, and the positive pressure test showed no increase in capillary resistance in these cases. The author concludes that "vitamin P constitutes another valuable adjuvant in the management of vascular purpura, provided the underlying cause is cleared."

Comparison of Premature Infants Before and After the Establishment of a Premature Nursery

H. RASCOFF (*Archives of Pediatrics,* 57:349, June 1940) reports that a special nursery for the care of premature infants has been established in the last year at the Beth El Hospital of Brooklyn. In this nursery, the infant is kept in a specially constructed incubator that automatically maintains a temperature of 85° to 95° F. and a relative humidity of 65 per cent. While no strict plan of feeding is enforced, the usual routine includes: Nothing by mouth for the first twelve hours; 5 per cent lactose solution for the second twelve hours, beginning with 2 c.c. and increasing by 1 dram. On the second day feeding is begun with breast milk diluted with equal parts of boiled water, or a formula composed of evaporated milk, 3 ounces, with boiled water 12 ounces, karo syrup or dextri-maltose, 5 per cent. One dram to one ounce is given for the first feeding, according to the weight of the infant; the amount is then increased every two to three hours, depending on the ability to retain the feedings. Mother's

milk is rarely obtainable, and the evaporated milk formula has been found to be very satisfactory in most cases. If the infant progresses well, a more concentrated formula is sometimes used—decreasing the water content and increasing the carbohydrate to 8 or 10 per cent. Orange juice or cevitamic acid tablets are given by the third week, cod liver oil concentrate in the fourth week and iron and ammonium citrate in the sixth week. Most premature infants cannot take their feedings by nipple. They are fed through a Sauer tube, consisting of a medicine dropper with a three inch catheter, placed on the floor of the mouth. Care is taken to prevent infection, and constant supervision by specially trained nurses is provided. Forty premature infants, weighing from 1.9 to 4.9 pounds, have been treated in the premature nursery; of these 4 died, a mortality of 10 per cent. The previous lowest mortality rate for premature infants in the general nursery was 22.5 per cent. Three infants weighing from 1.9 to 2.5 pounds at birth thrived in the premature nursery and were discharged alive and gaining well. In the general nursery group, no infant weighing under 2.9 pounds had survived. The author notes that the equipment used in this special premature nursery is comparatively inexpensive and "can be installed and managed successfully in any medium sized hospital."

Thyrotoxicosis in Children

W. A. Reilly *(American Journal of Diseases of Children,* 60:79, July 1940) presents a study of 62 cases in which thyrotoxicosis developed in childhood. There were 8 boys and 54 girls in this series; in 5 cases symptoms of toxicity developed before the end of the fifth year of life; in 19 cases between the age of six and eleven years; and in 28 cases between the ages of eleven and fifteen years. The clinical picture of thyrotoxicosis in these patients was much the same as in adults—nervousness, excess perspiration, loss of weight, tremor, tachycardia, exophthalmos and struma with thrill and bruit. The course of the disease showed cycles of exacerbation and remission, but a full remission was not observed in childhood without treatment. Thyrotoxicosis in childhood, however, has a definite effect on skeletal growth. Data on skeletal growth in 44 cases showed that 36 of these patients were above average height, and that the epiphyseal age was definitely accelerated; the girls, when tall, were often eunuchoid n appearance, but occasionally heavy framed and "acromegaloid." The degree of "gigantism" and acceleration of epiphyseal age was directly proportional to the severity and duration of the thyrotoxicosis. In 31 girls for whom information on sexual development was available, there was a definite tendency for the thyrotoxicosis to suppress ovarian function and retard normal sexual development; in the one boy studied in this respect, sexual maturation was retarded. Thirty of this group of patients were treated medically with iodine or rest in bed or a combination of the two; in 15 cases the disease was arrested or definite improvement was obtained. Roentgen therapy was employed chiefly as an adjunct to surgical treatment. Thirty-three patients were operated, including 11 in whom medical treatment had failed. A follow-up of these patients treated for thyrotoxicosis in childhood by surgery, medical means or roentgenotherapy shows that there were 12 definite recurrences and 3 questionable recurrences. In such cases recurrences may develop in later life ten to twelve years after "successful arrest" of the disease. Most of these recurrences were noted after medical treatment, but surgical recurrences occurred in 6 per cent of those operated. As a rule, however, if thyrotoxicosis is adequately treated during childhood and adolescence, the symptoms subside by the eighteenth year.

Adrenal Hypertrophy in Infants

R. K. DIJKHUIZEN and E. BEHR *(Acta paêdiatrica,* 27:279, May 1, 1940) describe a clinical picture of adrenal hypertrophy in infants, which has not been fully described in literature, although they find records of somewhat similar cases. Their first 2 cases showing this syndrome occurred in brothers; subsequently 2 other

cases of the same type have been reported to them from other hospitals in Holland. All these 4 cases showed a marked clinical similarity; all the patients were young infants, 3 were males, one female. The chief symptom was persistent vomiting with resulting emaciation and dehydration. These suggested an intestinal stenosis, but in one case (the authors' first case) laparotomy, and in the other 3 cases autopsy showed no intestinal stenosis to be present. In the 3 cases that came to autopsy the adrenals showed marked hypertrophy with gyrated surfaces. In the authors' case that came to autopsy a true adrenal hyperplasia was found. In their first case, in which autopsy was not permitted, but operation showed no intestinal stenosis, the infant had a perineal hypospadia, a pseudo-hermaphroditism suggestive of adrenal hyperplasia. In a review of the cases of adrenal hypertrophy in infants reported in literature, the authors find that these children had intestinal disorders, and were usually boys or pseudo-hermaphrodites. It is suggested that there is an increased cortical hormone activity in these cases, but "further clinical, pathological and experimental data are required to define and, if possible to explain the clinical picture."

Hypertension in Diphtheria

I. ROSENBAUM, JR. (*Journal of Pediatrics*, 17:210, Aug. 1940) notes that the blood pressure is often lowered in diphtheria, but hypertension is less frequently reported, especially in American literature. While several cases of hypertension in diphtheria have recently been reported in German literature, the author finds but 2 cases mentioned in English literature, in an article by Harrison and Williams (*Ann. Int. Med.*, 13:650, 1939). He reports 2 cases of hypertension in children developing in association with postdiphtheritic paralysis. One of these cases was noted by Harrison and Williams; both occurred in girls seven years of age. In both cases, the hypertension was closely associated with postdiphtheritic paralysis, increasing as the paralysis progressed and gradually decreasing as the paralysis cleared up. A review of the German literature shows a number of similar cases reported. It seems probable that hypertension developing late in diphtheria in association with paralysis is of neurologic origin, due "either to damage of a center in the medulla or mediated by irritation of nerve fibers similar to the carotid sinus reflex."

✚

The Adrenal Medulla

In summarizing that part played by the adrenal medulla in the functioning of the organism we may recognize that it coöperates with sympathetic impulses in producing adrenaline, that this sympathico-adrenal system is brought prominently and usefully into action in emotional excitement, in vigorous muscular work, in asphyxia, low blood pressure, chilling surroundings and hypoglycemia—in brief, that it serves effectively in emergencies; furthermore, that this service can be given a general expression in stating that the system guards the constancy of the internal environment of the organism; and finally that secreted adrenaline itself acts to prolong the effects of nerve impulses, to accelerate metabolism, to shorten coagulation time and to release glucose from the liver. There is no evidence that secreted adrenaline is an important agent in maintaining a high blood pressure.

W. B. CANNON, M. D.
Bull. N. Y. Acad. Med., Jan., 1940.

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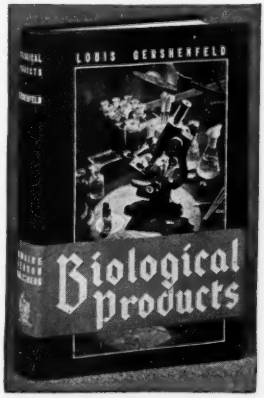

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Edited by **Alfred E. Shipley, M.D., Dr. P.H.**

A Genius Clinic

TUBERCULOSIS AND GENIUS. By Lewis J. Moorman, M. D. Chicago, University of Chicago Press, [c. 1940]. 272 pages, illustrated. 8vo. Cloth, $2.50.

AFTER laying a thoroughgoing and masterly foundation to establish the thesis that in tuberculous individuals of exceptional intellectual and esthetic equipment a toxinic factor gives rise to psychic phenomena which sometimes take creative direction, Moorman presents an impressive clinic to give point to the aforesaid thesis. By a "clinic" we mean an illuminative discussion of the unique personalities and powers of ten great literary figures as influenced by tuberculosis in the manner noted. These striking examples are brought one by one into Moorman's extraordinary classroom, the "gleam and glitter on the plant that the frost has laid a finger on" demonstrated convincingly, and the linking of the gleam and glitter with imagination and creation charmingly traced and mapped. Moorman, in so laying bare the mechanisms of genius in this particular realm, commands a rich array of proofs both subtle and obvious, satisfying and suggestive.

CRAWFORD W. LONG
1815 ~ 1875

Classical Quotations

• The first patient to whom I administered ether in a surgical operation was Mr. James M. Venables. . . . The ether was given to Mr. Venable on a towel, and when fully under its influence I extirpated the tumor [on back part of neck]. It was encysted and about half an inch in diameter. The patient continued to inhale ether during the time of the operation, and when informed it was over, seemed incredulous until the tumor was shown him.

Crawford W. Long.

From paper read before the Georgia State Medical Society in 1848, reporting the performance of the above operation on March 30, 1842.

The "persons of the drama" whom Moorman invokes are Robert Louis Stevenson, Friedrich Schiller, Marie Bashkirtseff, Katherine Mansfield, Voltaire, Molière, Francis Thompson, Percy Bysshe Shelley, John Keats, and Saint Francis of Assisi; a dazzling galaxy of immortal mortals, if we may say so, selected from the list of supremely great tuberculous geniuses—a list "so long as to suggest something more than coincidence."

Tragic drama here throbs in each history of a creative life, as Moorman's synthesis of toxin plus the divine spark of genius becomes a revealing equation. To the currents of energy so let loose, the smashed atom of the physicists compares weakly; for today the ideas of Moorman's ten geniuses are equivalent in power, electrodynamically considered, to the amount of energy required to light a city like New York in virtual perpetuity. Are we not *activated* still, militarily and otherwise, by Schiller's conception of liberty?

Our entire defense program (and that of Great Britain) can be related to the thinking of Schiller. Do we not still *proceed* upon Voltaire and Molière's premise of the free mind? And do not men still *act* upon the spiritual impetus released by Saint Francis? What mere dynamo's temporary output can compare with this?

The *spes phthisica* has been a familiar psychopathologic phenomenon since Aretaeus described it accurately in the second century A.D. Its relation to the mechanisms of genius has been discerned and discussed from time to time. Moorman is to be congratulated upon his insight into, and understanding of, the evasive elements in the personalities of his "clinical cases," and thanked for his clear elucidation of how the creative components of these elements came into play.

ARTHUR C. JACOBSON

MacCallum's Pathology Revised

A TEXTBOOK OF PATHOLOGY. By W. G. MacCallum. Seventh edition. Philadelphia, W. B. Saunders Company, [c. 1940]. 1302 pages, illustrated. 8vo. Cloth, $10.00

IN the seventh edition the original arrangement of material, a unique one, is maintained, and the book thus retains its stamp of individuality without detracting from its usefulness and value. The text has been thoroughly revised. Yet in some instances, a nomenclature is included which is open to some question such as melanosarcoma, or giant cell sarcoma (epulis). The chapter on brain tumors is somewhat disappointing, being rather brief, but in a general textbook on pathology, detail in this field can not be expected.

Much space, and properly so, is devoted to physiological and functional mechanism in the explanation of pathologic changes. This yields a certain amount of satisfaction in its reading, since it contributes much to an understanding of the subjects thus treated. Illustrations, well executed and prolifically distributed, serve to amplify the text. The photographs and colored drawings are especially good.

The style of the author is delightful, and the book reads in a most interesting fashion. All in all, it is an excellent exposition of the subject of pathology for the student and practitioner.

MAX LEDERER

The Peripheral Circulation

MANUAL OF PERIPHERAL VASCULAR DISORDERS. By David W. Kramer, M.D. Philadelphia, The Blakiston Company, [c. 1940]. 448 pages, illustrated. 8vo. Cloth, $6.00.

This *Manual of Peripheral Vascular Disorders* by a well known worker in the field has many points of merit. It is subdivided into four parts. Part one discusses symptoms, signs and tests to determine peripheral vascular pathology in a clear and practical way. Part two is subdivided into inflammatory and non-inflammatory forms of occlusive vascular diseases. This includes an excellent discussion of acute arteritis. Part three presents vasopastic and vasodilator disorders, and describes the newer concepts of hypertension, which he considers a peripheral vascular disorder. Part four is devoted to gangrene and disorders of the veins.

The tables on differential diagnosis are clear, and represent a desirable feature of this manual. Many excellent illustrations are interspersed throughout the book. The table of contents and index are well arranged.

To make this manual more complete a discussion on disorders of the lymphatic system of the extremities would have been of value.

It is generally a good book on the subject, and represents a distinct contribution

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to the literature.

NATHAN D. WILENSKY

Davison's Pediatrics Revised

THE COMPLEAT PEDIATRICIAN. For the use of Medical Students, Internes, General Practitioners, and Pediatrists. By Wilburt C. Davison, M.D. Third edition. Durham, Duke University Press, [c. 1940]. 256 pages. 8vo. Cloth, $3.75.

In this third edition, the author has revised the text to bring it abreast of current pediatric literature which has accumulated during the past three years. The unique features so characteristic of this book have been maintained; emphasis is placed on symptoms and signs as clues to diagnosis rather than on detailed descriptions of the diseases. The practical value of this method of presentation in clinical bedside work and for the purpose of teaching is obvious. The same rare originality of method and completeness of contents, so true of previous editions, are continued in the present one. The volume supplies a practical, reliable, and invaluable means of instant consultation to which the physician may confidently refer for immediate information in diagnostic or therapeutic problems. This book surely brings closer together the application of the science of medicine to its daily practice.

JOSEPH C. REGAN

Do You Remember Your Dickens?

DOCTORS, NURSES AND DICKENS. By Robert D. Neely. Boston. The Christopher Publishing House, [c. 1939]. 153 pages, illustrated. 8vo. Cloth, $1.50.

The author of *The Lawyers of Dickens and their Clerks* has now isolated from the works of Charles Dickens extracts and references illustrative of the behavior and the behaviorism of the doctors and nurses who have appeared in the stories of that great artist of human characterization. Because of their implied or actual relationship, students, internes, undertakers and some ministers are allowed to appear. The book is not, however, merely a series of quotations, but a most interesting and instructive commentary on the works of Dickens by Mr. Neely, who has the gift of stimulating an interest in those books of Dickens which may have been neglected. The doctors are supposed to appear in a more favorable light than the lawyers. Many of the references do not make this very clear. Modern trained nurses will not, it is feared, be happy on the emphasis of the Sairey Gamp type of nursing. "It is all in good fun," as the saying goes, and Mr. Neely has picked out some typical Dickens word pictures which will interest and amuse the doctors and their associates.

JOSEPH RAPHAEL

A Metabolic Study

OBESITY AND LEANNESS. By Hugo Rony, M. D. Philadelphia, Lea & Febiger, [c. 1940]. 300 pages, illustrated. 8vo. Cloth, $3.75.

There is so much confusion concerning the significance, causes and treatment of obesity that this comprehensive study, presenting with the same thoroughness the theoretical aspects and clinical, diagnostic and therapeutic points, must be welcome both to the general practitioner and the student of metabolic disorders. Doctor Rony's scholarly book is written by a man conversant with the biochemical aspects of intermediary metabolism as well as the clinical problems of the obese patient. His attitude is conservative and often skeptical. Controversial views are presented impartially, the author siding with the argument which in his view carries greater weight. Often, however, he omits to act as arbiter and retires behind "the lack of evidence." Such reluctance is fully justified, and fails to satisfy only occasionally, for instance, when the author says, "There is no evidence that the hypophysis, adrenals, thyroid or other glands can control fat distribution in a direct way". The author takes a commendable middle of the road attitude in the eternal argument between those who explain all metabolic or nutritional disorders with changes in the hypothalamus and those who, ignoring the higher centers, seek explanation of all syndromes, exclusively in the endocrine glands.

M. A. GOLDZIEHER

Infantile Paralysis

CARE OF POLIOMYELITIS. By Jessie L. Stevenson, R.N. New York, The Macmillan Company. [c. 1940]. 230 pages, illustrated. 12 mo. Cloth, $2.50.

This task is excellently done. The book

begins with what seems to this reviewer an unnecessary, but unobjectionable amount of history. The author details the principles of treatment, emphasizing strongly and properly the protective side. She gives good advice in regard to knowing and utilizing the proper agencies, at all times deferring to the attending physician. Her deference to the medical attendant is correct and emphatic. She does not fail to consider and properly advise psychological considerations to patient and especially family.

All this is well done and then, the main object of the book, her advice on the technical procedures *is* excellent. The book is heartily recommended.

WALTER D. LUDLUM

Levine's Cardiology

CLINICAL HEART DISEASE. By Samuel A. Levine, M. D. Second edition. Philadelphia, W. B. Saunders Company, [c. 1940]. 495 pages. 8vo. Cloth, $6.00.

In the second edition of Dr. Levine's valuable treatise on heart disease, the author has rearranged his material, presenting first the natural history of various types of heart disease, and their manifestations, and later taking up the mechanism of heart failure and its treatment. This is perhaps more logical, and if the work is used as a reference book, the arrangement of the chapters makes no difference. However, in the earlier edition, a student reading through the book was better prepared by the introductory account of the chief cardiac symptoms and their mechanism to appreciate the clinical implications in the descriptions of the various types of heart disease. There are many other modifications and additions, including about 125 pages of clinical electrocardiography. The book represents, as the author observes, "a personal or individualistic treatise" which is more than acceptable, since Dr. Levine is generally regarded as an authority in this field.

The reviewer is acquainted with no more graphic or sound presentation of the essential features of diseases of the heart.

TASKER HOWARD

Historical Novel on Lee and Beaumont

LEE ON THE LEVEE. By Ralph Cannon. (An Historical Novel.) New York, The Saravan House, [c. 1940]. 188 pages. 8vo. Cloth, $2.50.

This interesting novel covers a page in the history of the two most famous names in American history during the period of 1838-39: Robert E. Lee and Doctor William Beaumont, a great military genius and the most famous physiologist of the time. The close associations of these men, their characters and the social status of that period, are all clearly depicted in this book.

Robert E. Lee was sent by the U. S. government to St. Louis on August 5th, 1837 to take charge of a corps of engineers. He was instructed to perform a very important service in preventing the Mississippi River from changing its course and leaving the city of St. Louis high and dry. The work kept him there for several years, during which time a very intimate relationship sprung up between the Lee and the Beaumont families. They occupied the same premises in Governor Clark's mansion, and spent many leisure hours together. The depth of the friendship existing between the Lees and the Beaumonts may be judged from the fact that fifteen years afterwards they were still corresponding, and were still interested in the welfare of the families.

Dr. Beaumont is pictured as a tall, acquiline, ruddy, strong, and forceful individual while Lee shows traces of femininity, kind hearted, considerate, but strongly devoted to his duties.

This book is interesting in the fact that it brings to light the wonderful piece of engineering which was maneuvered by Lee under bad conditions and great disadvantages and the close friendship between the Virginia gentleman and this frontier doctor, whose interests and background were so very different. It is highly regrettable, however, that certain inaccuracies appear in this novel, namely, Alexis St. Martin, the Canadian-Indian upon whom Dr. Beaumont did most of his physiological experiments, is mentioned in this book but he was not in St. Louis during the years of 1838-39, and Dr. Beaumont did not know his whereabouts, and also Dr. Beaumont

never visited a theatre or permitted any member of his family to visit one.

WILLIAM RACHLIN

Anatomy for the Student

A SYNOPSIS OF REGIONAL ANATOMY. By T. B. Johnston, M.D. Fourth edition. Philadelphia, Lea & Febiger, [c. 1939]. 462 pages, illustrated. 12mo. Cloth, $4.50.

This book is not intended to be a reference book, a compend, or a guide in dissection or anatomy. It is intended for students and those who are reviewing their anatomy and who have access to the dissecting room and also have available material for dissection and the carefully dissected part.

The descriptions are concise and yet sufficiently comprehensive to thoroughly serve their purpose. Function of parts is not neglected. Illustrations have been deliberately omitted except in the treatment of the central nervous system.

For the limited purpose for which it is intended, the book is well suited.

WALTER H. SCHMITT

Electrocardiography

THE ELECTROCARDIOGRAM IN CONGENITAL CARDIAC DISEASE. A Study of 109 Cases, 106 with Autopsy. By Maurice A. Schnitker, M.D. Cambridge, Harvard University Press, [c. 1940]. 147 pages, illustrated. 8 vo. Cloth, $3.00.

This is a work of high quality. There is a good chapter on the electrocardiogram in infancy and childhood. Following this each one of the important congenital malformations of the heart is discussed both from clinical and electrocardiographic standpoints. In many conditions there is nothing characteristic about the electrocardiogram, but the clear presentation of the high points in clinical diagnosis compensate for this fact. The author stresses the importance of high, pointed P waves in congenital lesions that cause enlargement of the auricles. He also finds biphasic Q. R. S. groups useful in calling attention to the possibility of congenital heart disease.

The book is well written, is conservative and will serve as an excellent reference work for anyone interested in electrocardiography.

E. P. MAYNARD, JR.

The Chronically Ill

THE UNSEEN PLAGUE: CHRONIC DISEASE. By Ernst P. Boas, M.D. New York, J. J. Augustin Publisher, [c. 1940]. 121 pages. 8vo. Cloth, $2.00.

This is a very interesting book about various social aspects of chronic diseases. It discusses the relationships between doctor, patient, and numerous public charities in the care of an ever increasing number of people afflicted with chronic diseases and disorders of old age. It brings up a number of vital issues, and is well worth perusing.

ANDREW M. BABEY

Hygiene for College Students

TEXTBOOK OF HEALTHFUL LIVING. By Harold S. Diehl, M.D. Second edition. New York, McGraw-Hill Book Company, [c. 1939]. 634 pages, illustrated. 8vo. Cloth, $2.50.

This book is a revision of *Healthful Living*, and is written in response to requests from colleges and universities for a textbook to be used for courses in personal hygiene. In the first two chapters major health problems and the possibilities of longer life are discussed with the aid of statistical presentation. The whole field of personal hygiene is well covered. The omission of discussions covering the fields of anatomy and physiology, except in so far as the subject matter of the book is concerned, is a desirable feature. A chapter on choosing a health adviser is of particular value. The broad aspects of community health are covered, and a chapter is devoted to organized health work. This is an admirable book for the purpose designated by the author.

F. L. MOORE

For the Hospital Administrator

LEGAL GUIDE FOR AMERICAN HOSPITALS. By Emanuel Hayt, LL.B. and Lillian R. Hayt, M.A. New York, Hospital Textbook Company, [c. 1940]. 608 pages. 8vo. Cloth, $5.00.

This volume of some 600 pages provides the hospital field with a practical treatise on the legal aspects of hospital administration with technical terms and phraseology reduced to a minimum. There are twenty-seven chapters dealing with various phases of hospital routine among which are—Hospital Organization and Management; Hospital and Corporate

Medical Practice, Hospital Records. The Medical Staff, and Malpractice Claims, Nursing Law and the Hospital, Hospital Liens in Liability Cases and Benefits under the Workmen's Compensation Act. It is an invaluable reference book.

WILLIS G. NEALLEY

The Life of a Medico - Author

THE WIND OF CIRCUMSTANCE. By Harold Dearden. New York, Reynal & Hitchcock, [c. 1940]. 437 pages. 8vo. Cloth, $3.00.

This is essentially an autobiographical account of the life of Dr. Harold Dearden, who practiced "psychological medicine" for thirty years in London and then took down his shingle to devote himself exclusively to authorship. Some 13 books and three plays are cited as coming from the same author, one play, "Interference" in collaboration with Roland Pertwee. As might be expected from a writer with such a special medical training as Dr. Dearden, many of the incidents recounted have a neurological or a psychiatric implication. There are many more experiences of a personal nature which are humorous, photographic or even dramatic. You will enjoy, we are sure, the account of his six weeks with the traveling caravan of strong men, tricksters,—and the attractive trapeze performer; the story of how he found "Tim," his dog, and their close friendship for years to come; you will wonder at his courtship and his married life; you will be thrilled by the events of his four years in the English army during the World War, which left him a serious head injury; you will find interest and, at times, amusement in his case histories and in the account of why he took down his shingle. There is much in this book for the medical reader, but we have here, also, another "doctor book" which should have an appeal to the layman.

JOSEPH RAPHAEL

For the Hard of Hearing

COMPLETE GUIDE FOR THE DEAFENED. By A. F. Niemoeller, M.A. New York, Harvest House, [c. 1940]. 256 pages. 8vo. Cloth, $3.00.

The author definitely fulfilled a need in the preparation and publication of this volume. Patients with hearing impairment spend a great deal of time and money, first in seeking a cure, then later, learning that cure is impossible, they expend still more money and effort in attempting to adjust themselves to an unalterable situation. The otologist appreciates the fact that many cases of hearing impairment are incurable. The problems of the Hard of Hearing, therefore, resolve themselves not only into the otologic phase, but also, broadly speaking, into the entire sociological aspect. This book offers a key to the otologist, and indeed fulfills its purpose as a guide for the layman. The author has prepared his book with a great deal of painstaking thought, arranging the chapters in a logical sequence, so that the reader follows the subject with interest and ease. The subject matter assists the patient in contending with his own individual problems. Although here and there the author suggests self-treatment yet, these suggestions are made with a proviso and with advice to seek medical consultation. This book should be read by every otologist as well as by every patient with hearing impairment. After this perusal, the steps to guidance, adjustment and rehabilitation will be made more willingly and with better understanding.

SAMUEL ZWERLING

HANDBOOK OF HEARING AIDS. By A. F. Niemoeller, M.A. New York, Harvest House, [c. 1940]. 156 pages. 8vo. Cloth, $3.00.

This volume has been prepared primarily for the layman and admirably fulfills a need, not only for the patient and social worker but also for the otologist. In most respects it is an all-inclusive dissertation on the subject. The patient with hearing impairment cannot be fitted with a hearing aid as scientifically as one with impaired vision is refracted and fitted for glasses. Although research is being conducted, and progress is being made, there is still much left to be desired in the field of hearing aids. The author, however, gives a complete and frank discussion, stressing the known facts and the pitfalls which are to be avoided in the selection and the use of a hearing aid. This book is written in simple language which the layman can easily un-

derstand and appreciate. The introduction by Dr. Hays and the format add a great deal to the ease of reading and the continued interest of the reader. The publication of this book is indeed a step forward in coping with the problems of the hard of hearing.

SAMUEL ZWERLING

BOOKS RECEIVED

for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

In Search of Complications. An Autobiography by Eugene de Savitsch, M.D. New York, Simon and Schuster, [c. 1940]. 396 pages. 8vo. Cloth, $3.00.

The Amblyopia Reader (A system of eye-sight development). With a foreword and notes by Margaret Dobson, M.D. New York, American Optical Company, [c. 1940]. 93 pages, illustrated. 8vo. Cloth.

Gynecological and Obstetrical Pathology. With Clinical and Endocrine Relations. By Emil Novak, M.D. Philadelphia, W. B. Saunders Company, [c. 1940]. 496 pages, illustrated. 8vo. Cloth.

Report on the Sex Question. By The Swedish Population Commission. Translated and edited by Virginia C. Hamilton, M.D. Baltimore, Williams & Wilkins Company, [c. 1940]. 182 pages. 8vo. Cloth, $2.00.

As the Twig is Bent. By Leslie B. Hohman, M.D. New York, The Macmillan Company, [c. 1940]. 291 pages. 8vo. Cloth, $2.50.

Hereditary and Environmental Factors in the Causation of Manic-Depressive Psychoses and Dementia Praecox. By Horatio M. Pollock, Benjamin Malzberg and Raymond G. Fuller. Utica, State Hospitals Press, [c. 1939]. 473 pages, illustrated. 8vo. Cloth, $2.50.

Berkeley Moynihan, Surgeon. By Donald Bateman. New York, The Macmillan Company, [c. 1940]. 353 pages, illustrated. 8vo. Cloth, $4.00.

Feeding the Family. By Mary Swartz Rose, Ph.D. Fourth edition. New York, Macmillan Company, [c. 1940]. 421 pages, illustrated. 8vo. Cloth. $3.75.

Medical Nursing. By Edgar Hull, M.D., Christine Wright, R.N., and Ann B. Eyl, B.S. Philadelphia, F. A. Davis Company, [c. 1940]. 588 pages, illustrated. 8vo. Cloth, $3.50.

Manual of Medical and Surgical Emergencies. Edited by J. C. Geiger, M.D. San Francisco, J. W. Stacey, Inc., [c. 1940]. 199 pages. 8vo. Cloth, $2.50.

Heart Failure. By Arthur M. Fishberg, M.D. Second edition. Philadelphia, Lea & Febiger, [c. 1940]. 829 pages, illustrated. 8vo. Cloth, $8.50.

The Virus: Life's Enemy. By Kenneth M. Smith, F.R.S. New York, The Macmillan Company, [c. 1940]. 176 pages. 12mo. Cloth, $2.00.

The Chinese Way in Medicine. By Edward H. Hume. Baltimore, Johns Hopkins Press, [c. 1940]. 189 pages, illustrated. 8vo. Cloth, $2.25.

Tuberculosis and Genius. By Lewis J. Moorman, M.D. Chicago, University of Chicago Press, [c. 1940]. 272 pages, illustrated. 8vo. Cloth, $2.50.

Columbia University Department of Public Information

APPOINTMENT of three new departmental heads at the New York Post-Graduate Medical School of Columbia University is announced by Dr. Willard C. Rappleye, director of the School and dean of the College of Physicians and Surgeons.

The new executive officers are Dr. Henry H. Ritter, department of traumatic surgery; Dr. George Anopol, department of orthopedic surgery, and Dr. Irving S. Wright, department of medicine.

Dr. Ritter, who developed improved methods for treating skeletal injuries received in accidents, succeeds Dr. John J. Moorhead, founder of the department of traumatic surgery in 1909. Dr. Moorhead will remain on the staff as a consultant.

Born in New York City on January 19, 1889, Dr. Ritter received the M.D. degree from the New York University and Bellevue Hospital Medical College in 1910. He served his internship at Harlem Hospital and at Bellevue and Allied Hospitals from 1910 to 1912.

TREATMENT OF CHRONIC CERVICITIS

1. A pelvic examination is incomplete without inspection of the cervix by one who is familiar with the gross pathologic processes of the cervix.

2. Every erosion of the cervix should be regarded as a potential carcinoma. Biopsies should be made in all suspicious cases.

3. Superiority of electrosurgery has been recognized to an extent as to have relegated plastic surgery to the background, yet the latter still has a definite place in selected cases. Extensive lacerations in chronic cervicitis are best treated by operation. For lacerations less than 1½ cm. in length cauterization is most suitable; the result is equally good and there is less danger of malignancy following this procedure.

4. Amputation of the cervix should not be performed during the child-bearing age, but in the elderly an amputation is indicated in the presence of a badly diseased cervix with multiple lacerations. Stürmdorf's, or a modified Schröder operation, is preferable for young women with an elongated hypertrophied cervix.

5. In chronic cervicitis limited to the endocervix, small cautery points should be used. Chronic interstitial cervicitis with moderate hypertrophy and only a few cysts should be treated by deep lineal burns and puncture of the remaining cysts with a cautery point.

6. For a large, cystic, degenerated cervix with extensive hyperplasia, conization is preferable. Cysts not removed by this method may be punctured with a cautery point. If a laceration of moderate degree is present, this should be cauterized.

7. Postoperative care is most important following electrosurgery to prevent atresia or stenosis.

8. Electrosurgery should not be undertaken during an acute infectious process. If the uterus is retroverted, and especially if the cervical canal is patent, the danger of complications is increased. Unless imperatively indicated, the uterus should not be invaded at operation, as dilation and curettage of the uterus materially add to the possibility of infection.

9. Because of the variety of bacteria present in chronic cervicitis, the patient should not be led to believe that there is no danger in either electrosurgery or plastic surgery. A small percentage of patients may succumb from an infection; a larger number are gravely ill for weeks. Others are never completely cured of residual disease following acute pelvic infection.

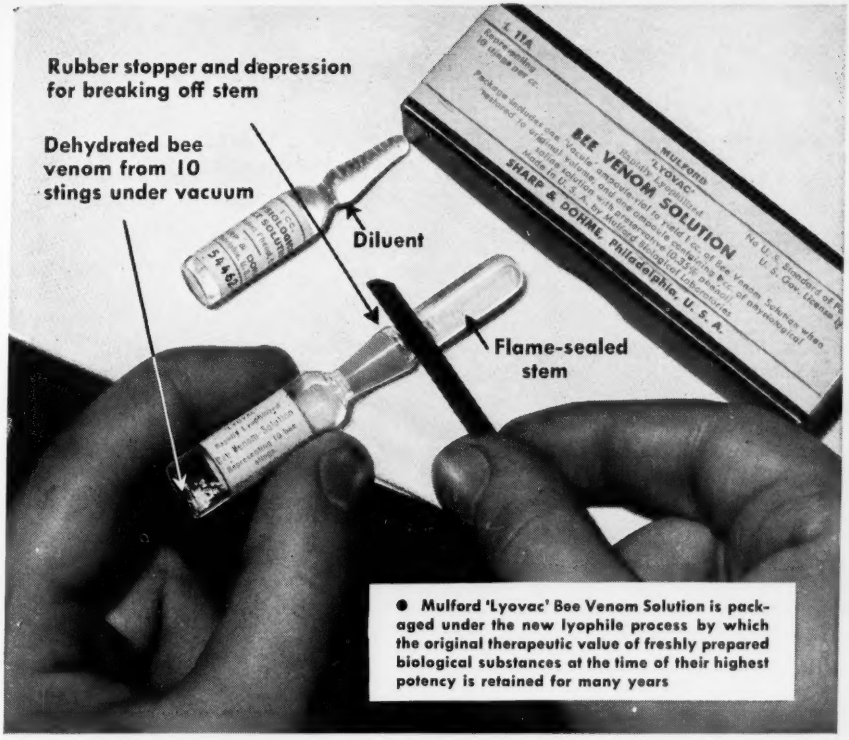
10. The cervix has remarkable recuperative powers, and if good surgical judgment is exercised in the selection of the treatment of chronic cervicitis, excellent results may be anticipated.

—William T. Black, M.D., F.A.C.S.
Archives Phys. Ther., July, 1939

USE AND ABUSE OF CHEMOTHERAPEUTIC AGENTS

Abundant clinical evidence has now been produced to support the experimental animal evidence as to the efficacy of the sulphonamide group of drugs in the treatment of certain bacterial infections. It is only natural that this striking addition to active therapy for serious and common diseases should lead to a certain amount of human experimentation in clinical hands. It is, perhaps, only natural that in this experimentation, enthusiasm should over-run critical judgment even to the point of abuse.

—L. E. H. Whitby, M.D.
Practitioner, Jan., 1940



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Detailed information on the use of this product, the dosage schedule and method of administration will be sent on request.

MULFORD BIOLOGICAL LABORATORIES

Sharp & Dohme

Dietetic Digest

Fatty Acid Therapy in Allergy

ACCORDING to *Nutrition Abstracts and Review* (9,759 (1940)) the blood has a below-normal value for iodine in many allergic diseases. It is suggested that 8-10 capsules of 0.20 grams each of a mixture of unsaturated fatty acids (such as linoleic and linolenic) be administered daily. Presented as successfully treated by this therapy were one case of urticaria, five of eczema, ten of bronchial asthma, and four of hay fever.

Lead Absorption in Diet

TOMPSETT in the *Biochemical Journal* (*33*, 1237 (1939) #8) states that lead is absorbed in greater amounts by mice fed with a low calcium diet than by those fed on a high calcium content diet. No effect on absorption was observed with vitamin D and fat.

Vitamin B_6 in Paralysis Agitans

SPIES at recent Illinois State Medical Society through *Science News Letter* (*37*, 340 1940 #22) reports results within a few minutes in Parkinson's disease when treated by vitamin B_6 administered intravenously. Parkinson's disease is a shaking palsy, also known as *paralysis agitans,* and is severe and lingering. Stiffness, pain and muscular weakness are the chief symptoms with treatment practically hopeless. The author, with a colleague, administered vitamin B_6 to 11 cases of the disease, 8 being arteriosclerotic and 3 post-encephalitic. In the latter cases, improvement occurred within a few minutes after the injection. There was considerable decrease in tremor and rigidity and the patients were able to walk without the usual stiffness.

Of the arteriosclerotic patients two showed definite improvement, five showed no change and one became worse. Joliffe also reports similar results with vitamin B_6 in Parkinson's disease.

Dr. Spies also reported temporary relief of neuromuscular symptoms, roaring sensations in the ears, anorexia and insomnia in undernourished individuals under vitamin E or alpha-tocopherol therapy. No riboflavin deficiency, pellagra or beriberi was noticed in these patients.

Insulin Absorption

YOUNG, Phillips and Murlin in the *American Journal of Physiology* (*128*, 1, 81 (1939) present the results of a large number of experiments on 10 normal dogs. Insulin, when administered through the alimentary tract, is reported as having a limited and variable action. Alkaline buffered solutions of hexyl-, heptyl- and octyl- resorcinols had a definite favoring influence on the absorption of insulin from the alimentary tract. The fact that insulin is absorbed from the stomach and all portions of the intestine was definitely proved by experiments.

THE increased importance of the field of nutrition has prompted a review of the progress of the medical sciences in dietetics and nutrition. Each month in these pages is presented the current literature in this field, abstracted by Madeline Oxford Holland, D.Sc.

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Wide center hall, winding colonial stairway; connecting powder room; large colonial living room with log burning fireplace with door to garden terrace. Spacious dining room with china closet and antique cupboard, colonial wallpaper above chair rail and dado. The kitchen — a housewife's dream—is 17 feet long with wall cabinets, counter top, large pantry, a full windowed breakfast nook. A conveniently located office room and bath complete the first floor. Upstairs are 3 large bedrooms 2 baths. House thoroughly insulated, Oil fired Garwood Air-Conditioning System. House and land could not be duplicated today for less than $16,000. Reduced to

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Dietetic Digest

Molasses as Iron Source in Anemia

OLD-FASHIONED molasses is a rich, easily available and relatively inexpensive source of iron for nutritional anemia therapy, according to Harris, Sunker and Mosher in the *Scientific Monthly* (Sept. 1940, p. 291).

Its effectiveness compares favorably with chemicals administered parenterally in anemia.

Molasses being a by-product of the manufacture of sugar from sugar cane, the removal of most of the sugar leaves the iron among the concentrated residues. The less refined molasses is richer in the iron which is usable by the body in building hemoglobin. Molasses has about 6.1 parts of such usable iron per 100,000 parts by weight of molasses. Beef liver is second with 5.6 parts per 100,000 and oatmeal third, with 4.6. Those foods such as apricots, eggs and raisins often listed in anemia therapy diets contain only about 2/3, 1/2 and 1/3, respectively, as much usable iron as does molasses. Spinach contains only 0.5 parts per 100,000.

Recent medical studies have shown that more than 40% of infants are anemic and the blood of as high as 70% of adult women was deficient in iron. Few individuals had absolutely normal blood. Thus nutritional anemia is more prevalent than previously suspected.

The usable iron in molasses was determined by biological and chemical methods.

White Flour Reinforced with Vitamin B_1

Cardinal in *The American Miller* (April 1940) states that it has been generally agreed that a serious vitamin B_1 deficiency exists in present-day American dietaries and correction of this situation is urgently desirable to protect public health. The logical, surest and simplest means of correction is the addition of the vitamin to staple foods consumed daily in goodly quantities by all classes of population.

Since white flour is blamed for a great

—Continued on page XXIV

Karo Formulas agree with Newborns

Karo . . . 2 tbs. *Whole Milk* 10 ozs. *Water* . . . 10 ozs.	KARO in whole milk mixtures is suitable for most newborns with good digestive capacities.
Karo . . . 2 tbs. *Evap. Milk* . 6 ozs. *Water* . . 12 ozs.	KARO in evaporated milk mixtures is indicated for newborns with limited digestive capacities, especially premature and feeble infants.
Karo . . . 2 tbs. *Powd. Milk* 5 tbs. *Water* . . 20 ozs.	KARO in dried milk mixtures is desirable for weak infants who will take only small volumes at a feeding.
Karo . . . 2 tbs. *Lactic Acid Milk* 12 ozs. *Water* . . . 8 ozs.	KARO in acid milk mixtures is invaluable for debilitated infants with low digestive capacities, requiring concentrated feeding.

IN HIGH CALORIC DIETS

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deal of this deficiency it is the most desirable medium for this purpose being consumed by a majority of the population. Once marketing of white flour with restored vitamin B_1 content gets actively under way and the public manifests an enthusiastic preference for it, the day will not be long coming when thiamin crystals will be mixed with an overwhelming percentage of the white flours produced in mills throughout the country. Perhaps such content may eventually be required by Governmental standards.

✚

Social Adjustment

THE Institute for Social Adjustment at 275 Spring Street, Ossining, New York, does not take patients in residence while they are undergoing study and treatment but arranges for their care at a local private sanatorium if they require hospitalization or at local residences with or without nursing care according to their needs.

This project had its inception in 1914; it was actually opened first in 1926; the present activity is a continuation in which three divisions are in process of development—a Division of Diagnosis, a Division of Therapy, and a Division of Prevention.

The philosophy back of the project considers social maladjustment from the biological standpoint, as evidence of illness. The Institute is concerned with individual patients. As far as science permits it practices "etiologic" medicine. Its fundamental concept that the mental fault behind the social maladjustment takes place in the body gives origin to its terminology "somatopsychic medical practice." It aspires to incorporate the whole of neuropsychiatry into the field of internal medicine.

In the Division of Diagnosis, use is made of all the clinical and laboratory methods now in good standing in general medical practice and in the specialties as need is found for them in the individual case. Additional facilities are taken from the techniques of the clinical neuropsychiatrist as well as of the laboratory neuropsychiatrist. The matter of functional tests in the definition of the degree of disability is one of special interest because this field has been studied adequately only in a few details. It is hoped to develop the matter of skin testing and the field of allergy in general for its possible value in a better understanding of the etiology of the conditions to which the Institute is devoted.

Standard psychological techniques are used in determining certain details of impaired mental functioning in specific cases. The type of psychoanalysis used may be termed "rational" and hence it is non-Freudian although it does not hesitate to utilize any valuable technique from any of the brands of psychoanalysis, if they seem to be applicable in any individual patient.

In the Division of Therapy we are naturally paying a great deal of attention to recent advances in vitamin and in endocrine therapy as rapidly as these sciences can offer pure and potent substances. The standard methods of general and special internal medicine are not being neglected.

Physicians show their confidence

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Resident Neuropsychiatrist

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Telephone: Ossining 2340

L. Theodore Spohr, M.D.
Visiting Neuropsychiatrist

Psychotherapy (Freudian or other) is used where indicated.

The Division of Prevention is planning studies and projects in connection with all the possible groupings of so-called "traumatic situations" as well as in connection with the usual etiologies known to the internists.

A staff, in sympathy with these objectives and viewpoints, is now in process of development.

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MEDICAL *(advertisers index)* TIMES

OCTOBER, 1940

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Concerning Euthanasia

Editor, MEDICAL TIMES
99 Nassau St.,
New York, N. Y.

Dear Sir: The correspondence which appeared in the October issue of the MEDICAL TIMES interests me very much. The Secretary of the Euthanasia Society of America requested the publication of a letter in answer to the editorial of August, 1940. You have been most kind and afforded your readers the opportunity to decide for themselves the "advantages" and evils of this practice commonly known as "mercy killing." In fairness to all there are certain facts which should be clarified. The advocates of this practice are working hard and their efforts command our interest. I appreciate, too, that the time and energy devoted is not for any selfish reasons but for what they believe is for the general public good. However, we can not be so over-enthusiastic as to lose sight of the fact that others may not see the subject in similar perspective.

The board of directors and officers of this organization are not regarded by me as "crackpots;" but of the 13 members of the board of directors and 5 officers, only four are medical men. The remainder are presumably educated persons. So it is fair that the organization's aims should receive some consideration. Since the minority are physicians, it is proper to enumerate some of the responsibilities physicians take upon themselves as members of the medical profession. The doctor of medicine has the obligation to advance the science and art of medicine and to guard and uphold its high standards of honor. It is the duty of the physician to be a minister of hope and comfort to the sick and to relieve them of suffering. In doing so he respects the Hippocratic Oath, "I will give no deadly medicine to anyone, if asked." The very purpose of the organization is contrary to this code which physicians swear by at graduation from medical schools. This oath is a moral force. Its noble rules of conduct and loyal obedience have raised the art of medicine to a lofty position. Now, according to the Secretary's letter in the October issue of the

—Continued on page XIV